# Occupational HAZARDS

THERE'S PROFIT IN PREVENTION

JUL 1949

JULY
1949

ROUTE TO
YOUR PLANT
E PROTECTION
EN: ARTICLES
ON FIRE
PROTECTION
OR INDUSTRY

IN THIS ISSUE:

AIR CONDITIONED CRANE CABS
ORGANIZING FOR FIRE PREVENTION
SAFETY THROUGH HUMOR

KIRK AND BLUM

# Plenum chamber hood "cleans up" mold conveyor operation

## American Foundry Company Replaces old Dust and Fume Removal System with modern KIRK & BLUM INSTALLATION

*As* a major step in foundry modernization and clean-up, the American Foundry Company of Indianapolis replaced their old, inefficient mold conveyor hood with a modern, efficient hood, designed and installed by KIRK & BLUM. The old system, as shown in the "before and after" photos, was severely worn; the air withdrawal rate was low, permitting dust and smoke to escape into the foundry.

The new KIRK & BLUM hood is designed so that the top is a plenum chamber, distributing air along the entire length of the hood. Every other panel is removable for access. Four exhaust units connect to the hood; each has a capacity of 13,000 CFM. Total air removed, 52,000 CFM, assures this firm cleanliness never before possible.

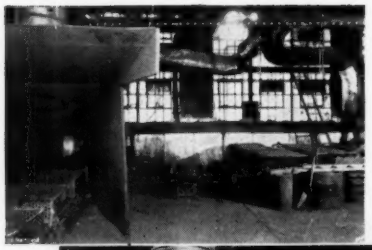
KIRK & BLUM systems, in many of the nation's leading foundries, practically eliminate dust and fumes from traditionally "dirty" jobs. Call the KIRK & BLUM Representative . . . more than 40 years of experience at your command, or ***write for your copy*** of "Dust Collecting Systems in Metal Industries," showing other typical installations. *The Kirk & Blum Mfg. Co.,* **2802** *Spring Grove Ave., Cincinnati 25, O.*

Designed, Fabricated and Installed by Liberty Engineering Div., KIRK & BLUM, Indianapolis, Ind.

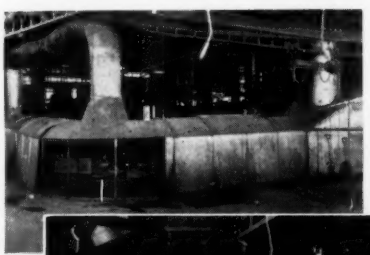
FOR CLEAN AIR . . . THE INVISIBLE TOOL

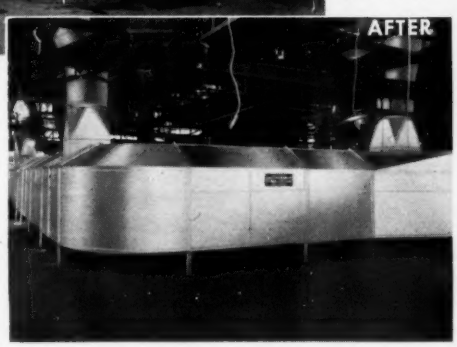
**KIRK AND BLUM**

**DUST AND FUME CONTROL SYSTEMS**

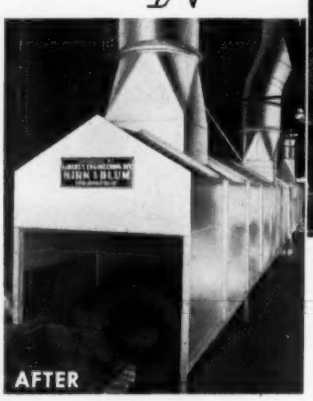


**1.** Entrance end of hood; note bolted section construction for ease of maintenance of conveyor.




**2.** Corner of conveyor. Note that new hood is off floor for ease of cleaning.



**3.** Exit end of conveyor and hood, showing the four duct-mounted exhausters with total capacity of 52,000 CFM.

# *Consummate Skill*

DISCOBOLUS
BY MYRON
5th Century B. C., Sala della Biga, Vatican, Rome

This bronze masterpiece was found in 1791 A.D. at Hadrian's Tiburtine Villa.[1] Foremost exponent of the athletic Attic school, "Myron's great fame ranks with that of Praxiteles, Polyclitus and Lysippus. Petronius, best of Roman critics, says, "Myron almost catches the breath of life in his bronze men."[2] For 24 centuries Discobolus has been one of the finest achievements of ancient artistry.

Whether in art, science or industry, outstanding eminence comes not from mediocre effort to remain competitive but from an unceasing drive for leadership — continual striving toward perfection. Such has been the philosophy that has brought Pax Heavy Duty to its present undisputed and unsurpassed position among occupational skin cleansers. That is why, for quality, for safety, for cleansing efficiency, for economy, there is nothing finer than Pax-Lano-Sav Heavy Duty.

[1] The Art of the Vatican, by Mary Knight Potter
[2] Classical Sculpture, by A. W. Lawrence

PAX

## PAX-LANO-SAV HEAVY DUTY GRANULATED SKIN CLEANSER

*There is Nothing Finer For All General Occupational Skin Cleansing*

PAX-LANO-SAV*—a superior skin emollient combining lanolin and other special skin normalizers.

49 G

What Is The PRICE FACTOR of PAX?

ADVERTISED IN AMERICAN MEDICAL ASSOCIATION PUBLICATIONS

PAX-LANO-SAV EMOLLIENT was developed in our Research Laboratory after years of intensive research. It is superior to lanolin alone because it skillfully combines generous quantities of lanolin PLUS other fine skin normalizers making PAX-LANO-SAV EMOLLIENT more effective in a skin cleanser. Integrated into PAX-LANO-SAV HEAVY DUTY Granulated Skin Cleanser in abundant quantity, PAX-LANO-SAV EMOLLIENT helps to protect the natural acid mantle of the skin during the wash. Skillful formulation of PAX-LANO-SAV HEAVY DUTY Granulated Skin Cleanser, remarkable cleansing ability, quick profuse suds and great bulk assure exceptional economy together with real satisfaction in use. Because it always stays free-flowing it may be used in the usual commercial dispenser for powdered soap.

**G. H. PACKWOOD MANUFACTURING CO. • 1545-55 TOWER GROVE AVE. • ST. LOUIS 10, MO.**

*Manufacturers of Fine Industrial Skin Cleansers*

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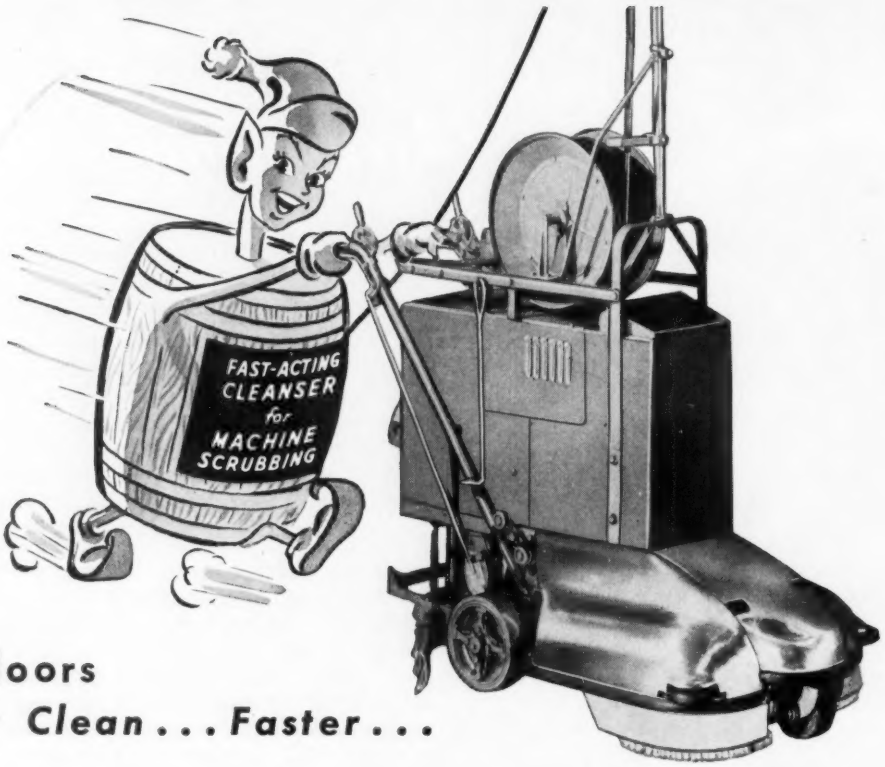
* Tradename of G. H. Packwood Mfg. Co.

*In addition to PAX-LANO-SAV HEAVY DUTY, PAX also offers the following powdered or granulated quality skin cleansers: PAX CORN-TEX • PAX HYSPEED • DICTATOR SPECIAL PURPOSE • BORAPAX • SUPER-X • VELVAPAX LIGHT DUTY • OFFICE-PAX • PAX MECHANICS. Also available are PAX WATERLESS and PAX HECTO INK CLEANSING CREAM • PAX SKIN CLEANSER ECONOMIZER* DISPENSERS • and many other fine PAX Products.




**Get Floors**
***Really Clean . . . Faster . . .***

# TEAM UP Your Scrubber with a Cleanser that's *MADE* for It!

The greater speed of mechanical scrubbing requires the use of a cleanser that keeps pace with the speed of the machine. Cleansers designed for hand-scrubbing cannot be expected to give the fast cleaning action required for machine-scrubbing. In an attempt to get floors thoroughly clean, the operator of a scrubbing machine using a slow-acting cleanser may resort to prolonged brush action, but that needlessly piles up mileage on the machine, increases labor costs, and prematurely wears out the brushes.

To utilize the full cleaning capacity of your scrubbing machine—to get floors *film-free clean* in minimum time—choose a cleanser that's specially made for machine-scrubbing. *All Finnell Cleansers are.* And there's a type for every need, including *Setol,* the mineral oil solvent for cleaning oily wood floors, and *Finola, the Original Scouring Powder,* for heavy duty scrubbing of smooth, hard-surface floors.

The *Finnell Machine* illustrated above is a *Self-Propelled Scrubber-Vacuum* designed for use on large-area floors. This *Finnell* applies the cleanser, scrubs, rinses if required, and picks up. Cleans up to 8,750 sq. ft. per hour!

The *nearby Finnell man* is readily available to help train your maintenance operators in the proper use of *Finnell Equipment* and *Supplies.* For consultation, demonstration, or literature, phone or write nearest *Finnell Branch* or Finnell System, Inc., 3507 East St., Elkhart, Ind. Branch Offices in all principal cities of the United States and Canada.

Everything FINNELL for Floor Care

**FINNELL SYSTEM, INC.**
*Pioneers and Specialists in*
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BRANCHES IN ALL PRINCIPAL CITIES

# Occupational HAZARDS

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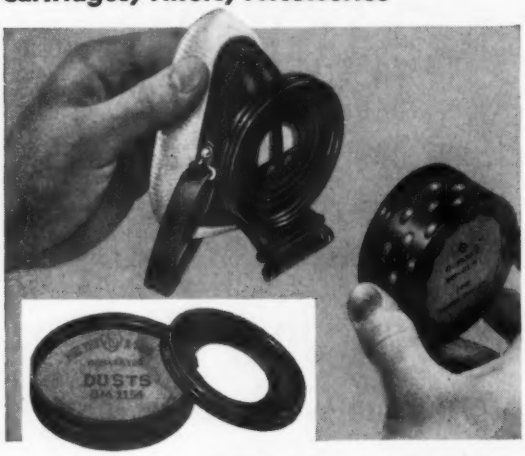
# NEW . . . AO R2000 RESPIRATOR

## WITH 7 TYPES OF CARTRIDGES and FILTER!

***"Twist of the Wrist" Interchanging of all Cartridges, Filters, Accessories***




AO presents the R2000 Respirator with a new type of retainer shell that accommodates 7 types of quickly INTERCHANGEABLE cartridges — THREE FOR PROTECTION AGAINST DUSTS — FOUR FOR GASES AND VAPORS — plus a DISK TYPE, CHEMICALLY TREATED DUST FILTER — eight respirators in one. Thus, for the first time, an overall dust respirator of the chemically treated, replaceable filter type provides secure protection against both specific dusts and specific gas and vapor hazards merely by interchanging the cartridges. Four new all metal chemical cartridges of NON-SPARKING, seamless aluminum protect against fire hazards, weigh less than previous types and have increased fill for added adsorptive capacity. Deterioration caused by moisture and rough handling is retarded.

## APPLICATIONS & ADAPTATIONS

**R2000**

Compact, five inch chemically treated "throw away" R25 filter has the efficiency of previous filters eight times its size. Protects against both poisonous and disease-producing dusts and against a *combination of all dusts* — toxic, nuisance and pneumoconiosis-producing. Gauze pre-filter adds to filter life by blocking entry of larger particles. Approved by Bureau of Mines, No. 2154.

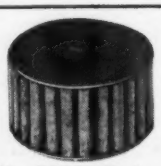
**R2031 — (R31 Cartridge)**
For low concentrations of light organic fumes, vapors and gases generated in paint spraying, degreasing, dry cleaning, cementing, etc. Adsorbs benzene, xylene, toluene, gasoline, acetone, turpentine, etc.

**R2032 — (R32 Cartridge)**
For low concentrations of acid gases, fumes and mists such as sulphuric acid, hydrogen chloride, nitric acid. Protects against fumes from plating and pickling tanks, etc.

**R2033 — (R33 Cartridge)**
For low concentrations of combined acid and organic gases such as halogenated hydrocarbons and trichlorethylene; carbon tetrachloride, acetic acid. Protects against gases, fumes and vapors in degreasing operations, etc.

**R2034 — (R34 Cartridge)**
For nuisance concentrations of ammonia only.

**R2015 — (R15 Cartridge)**
For nuisance and pneumoconiosis-producing dusts in mining, quarrying, tunneling (quartz, sand, asbestos, coal, marble). *Not* to be used against vapors, gases or toxic dusts. Bureau of Mines Approval No. 2121.



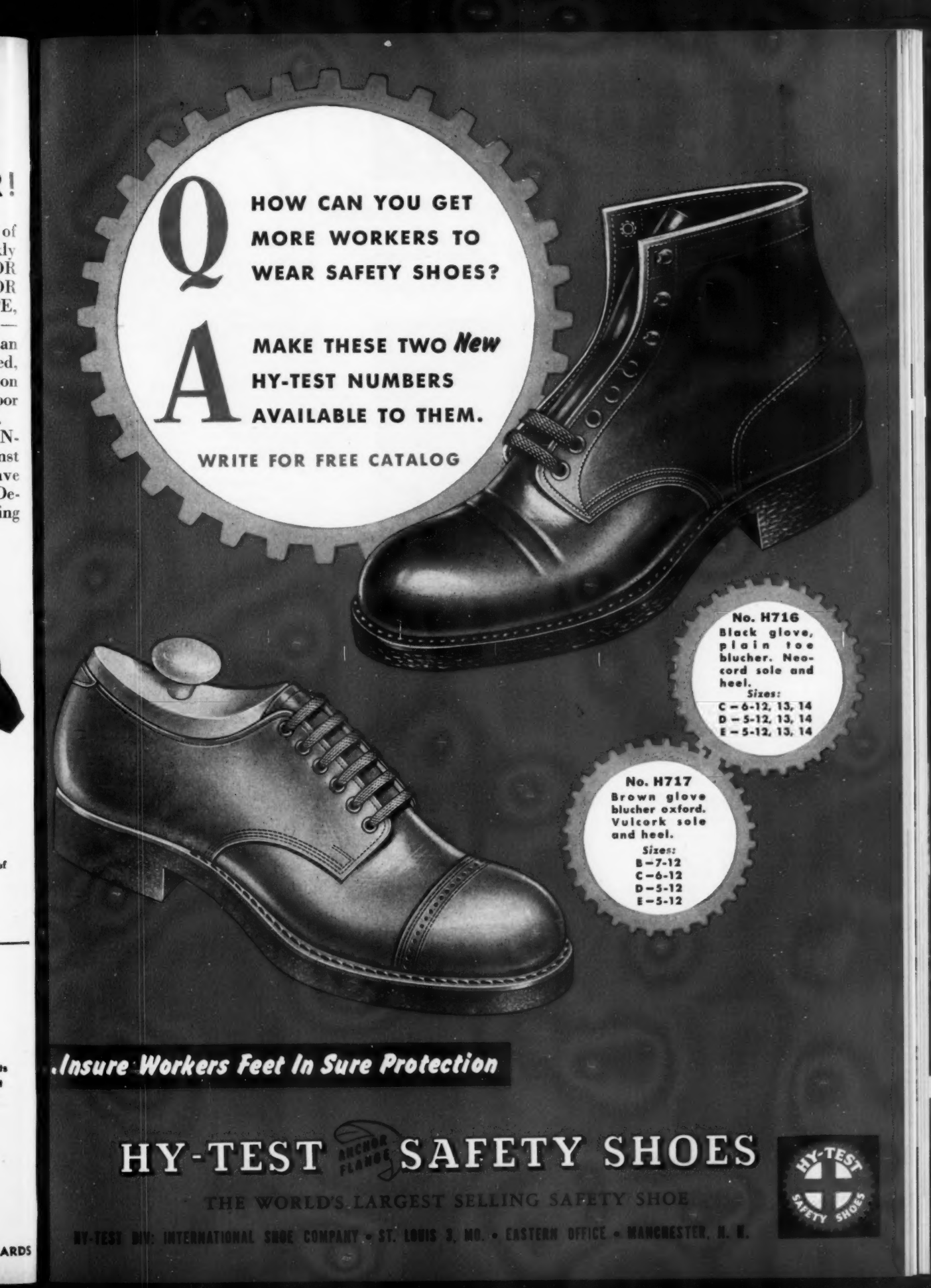
**R2016 — (R16 Cartridge)**
For toxic dusts caused by grinding and crushing lead, cadmium, arsenic, chromium, manganese, selenium, vanadium. *Not* to be used against gases or vapors of above material. Bureau of Mines Approval No. 2138.

**R2017 — (R17 Cartridge)**
For a combination of all dusts, including toxic, pneumoconiosis-producing and nuisance dusts. *Not* to be used against gases or vapors. Bureau of Mines Approval No. 2138.

**Order from your nearest AO Safety Products Representative and consult him about the protection to meet <u>your</u> needs.**

American Optical
COMPANY
*Safety Products Division*

***Southbridge, Massachusetts • Branches in Principal Cities***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HOW CAN YOU GET MORE WORKERS TO WEAR SAFETY SHOES?
A
MAKE THESE TWO New HY-TEST NUMBERS AVAILABLE TO THEM.
WRITE FOR FREE CATALOG
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Black glove, plain toe blucher. Neocord sole and heel.
Sizes:
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D – 5-12, 13, 14
E – 5-12, 13, 14
No. H717
Brown glove blucher oxford. Vulcork sole and heel.
Sizes:
B – 7-12
C – 6-12
D – 5-12
E – 5-12
Insure Workers Feet In Sure Protection
HY-TEST ANCHOR FLANGE SAFETY SHOES
THE WORLD'S LARGEST SELLING SAFETY SHOE
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## Safety Control for Power Presses

**Wins Approval of Management • Plant Superintendents • Safety Engineers • Press Operators**

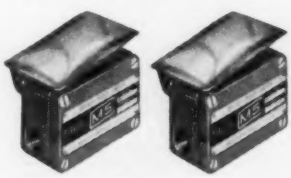
MICROTRIP Safety Control receives universal acceptance because it (1) greatly reduces power press accidents and (2) increases production thru ease of operation.

Both factors are highly important to plant executives to whom protection of employees from injury, reduced accident costs and increased production are vital. Operators appreciate MICROTRIP's light-touch actuation which allows rapid press operation with a minimum of effort.

MICROTRIP control is safe and sure. Both hands must touch the actuating plates at the same time or the press will not operate. Failure to do so opens the circuit—requires that a button on the control box be manually reset before further operation is possible.

MICROTRIP control is a simple, clean-cut device easily and quickly installed on present equipment. It is the ideal protection for otherwise hard-to-guard power presses. Ask for full information.

MICROTRIP control is the two-hand safety device which makes it impossible to operate the control circuit without touching both actuating plates at the same time.



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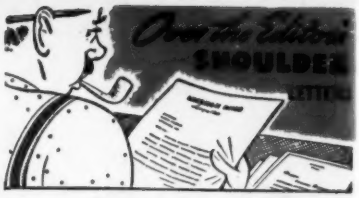


**Do you have any questions, theories or ideas concerning industrial health or safety? If you want to give them a good airing—send 'em along. We'll publish all space permits.**

### And Sudden Injury

OCCUPATIONAL HAZARDS:

You may be interested in the use to which we have put your excellent feature, "And Sudden Injury." We have a number of plywood panels, approximately 24" by 34" on which we mount items of interest for display throughout the plant. For example, we may mount a crushed safety shoe which prevented a toe injury or a shattered pair of glasses which prevented a serious eye injury.

In recent weeks we have posted copies of "And Sudden Injury"

taken from your excellent magazine and they have created a great deal of interest. Enclosed please find photo of one of the panels.—Peter Contardo, Safety Director, John A. Roebling's Sons Company, Trenton, N. J.

### Fire Brigade Article

OCCUPATIONAL HAZARDS:

In your last issue (May) of OCCUPATIONAL HAZARDS magazine, I was very much interested in

*(Please turn to page 40)*

# 3

## *Soles You Can Rely Upon to*

### NEO-CORD

**An outstanding sole made of DuPont Neoprene and stout cords. Non-slipping . . . long wearing. Ideal for wear on oil, grease, gasoline, acid or caustic covered floors. The finest sole between feet and floor.**

I DON'T LET
YOUR SLIPS
SHOW

# REDUCE ACCIDENTS

**Due to Slipping**

**GRO CORK SOLES**

**Tough natural rubber impregnated with cork. Won't pick up metal chips, outwears leather, is waterproof, and insulates feet against heat or cold. Best for steel riggers, rock quarries, shipyards, foundries, creameries, and metal cutting departments.**

**TRADE GRO MARK CORD CORD ON END**

**Actual tests prove Gro-Cords will outwear at least two leather soles. Cord-on-end construction combined with natural rubber makes these soles slip-proof and waterproof. Perfect for yard men, constantly wet floors, loading docks, etc.**

**GRO-CORD RUBBER CO., LIMA, OHIO**

*Canadian Plant*

**GRO-CORD RUBBER CO., TILLSONBURG, ONT.**

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## CAN HANDCUFF YOUR PRODUCTION!

*Safeguard All Hands* with **WEST LAN-O-KLEEN HAND CLEANSER**

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One way to remove these costly shackles is to avoid *unsafe* wash-up soaps. Instead, use WEST LAN-O-KLEEN—the mild, safe, quick-acting powdered soap that helps *protect* hands against the effects of industrial irritants. Dispensed through an economical, modern dispenser, WEST LAN-O-KLEEN contains no harsh ingredients or excess alkali to harm sensitive skins. Also, it is prepared of a gentle corn meal base which is "lanolinized"—thus helping to offset loss of natural skin oils.

***TRY LAN-O-KLEEN FREE—and SEE!***

*Fill out the coupon below! It'll bring you a sample of industry-proved WEST LAN-O-KLEEN without obligation. Along with this you'll receive a fact-packed booklet. It'll explain how WEST LAN-O-KLEEN and the modern LAN-O-KLEEN DISPENSER can cut your costs considerably.*

SEND FOR FREE SAMPLE

**WEST DISINFECTING Company**

**42-16 West Street, Long Island City 1, N. Y.**

**WEST DISINFECTING COMPANY**
**42-16 West Street, Long Island City 1, N. Y.**

Gentlemen:
Please send me a free sample carton of LAN-O-KLEEN.

Name_____ Position_____

Company_____

Address_____

City_____ State_____

14

# Electrical HAZARD SIGNS

DANGER HIGH VOLTAGE

KEEP AWAY DANGER HIGH VOLTAGE

CAUTION ELECTRIC TRUCKS GO SLOW

DANGER 440 VOLTS

DANGER 2,300 VOLTS

CAUTION OPEN SWITCHES BEFORE REPLACING FUSES

DANGER UNDERGROUND LIVE WIRE

DANGER MAN WORKING ON LINE DON'T — THROW SWITCH

CAUTION DO NOT USE ON ELECTRICAL FIRES

## KNOCKED OUT by HY VOLT!

**WHEN Hy Volt** hits a man he stays hit . . . usually injured, often killed.

For while Electricity serves virtually every Industrial need, it is only with care and experience . . . and constant warning . . . that workers are taught to safeguard themselves against such accidents.

## STONEHOUSE SIGNS

### For Accident Prevention

help to educate, warn, safeguard those who work with and around Electrical equipment. Post them for greater safety.

**Many more Electrical Hazard signs are shown in our Catalog No. 8. It's free on request.**

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MANUFACTURERS

*"Stonehouse Signs Since 1863"*

ACCIDENT PREVENTION SIGNS IN STANDARD COLORS AND DESIGNS

# *there's* NO SECRET

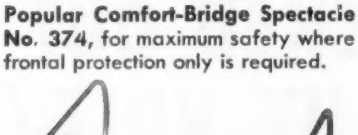
## *about the* SUCCESS *of* *New* CESCO SPECTACLE GOGGLES

**THEY DISPLAY 5 POINTS OF SUPERIORITY**

**Sideshield Comfort-Bridge Spectacle No. 380** protects the eyes from all angles.

**Popular Comfort-Bridge Spectacle No. 374,** for maximum safety where frontal protection only is required.

**Transparent Sideshield Model No. 385** permits discernment of objects through sides.



**Leather Padded Sideshield Model No. 390** for added comfort where heat is encountered.

1 • **GREATER PROTECTION** with the eye orbit and entire nose-bridge area sealed against entrance of foreign particles. CESCO *Comfort-Bridge* Spectacles are equipped with CESCO SUPER-SAFETY lenses, guaranteed to exceed federal specifications. Antiglare lenses are also available.

2 • **GREATER DURABILITY,** with shock-proof, reinforced frames that defy even rough treatment.

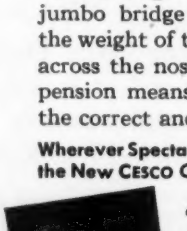
3 • **BETTER LOOKING,** with modern design that appeals to both men and women workers.

4 • **MORE EXACT FIT**—available in a selection of 3 bridge widths and lens sizes. Easily adjustable temples.

**PLUS**

5 • **GREATER COMFORT**—featuring the exclusive CESCO *Comfort Bridge*. Broad-bearing jumbo bridge pads distribute the weight of the goggle evenly across the nose. Balanced suspension means the goggle frame virtually "floats" in the correct and most comfortable position.

**Wherever Spectacle-type goggles are needed, you may be sure the New CESCO *Comfort-Bridge* Goggles meet all requirements.**




***New* CESCO Catalog available too!** *See the complete line of CESCO Spectacle-Type Goggles—and over 150 other protective items. If you do not yet have this guide to industrial safety, write for your copy now.*

**CHICAGO EYE SHIELD CO. • 308 Warren Boulevard • Chicago 12, Illinois**

CESCO

**CESCO FOR SAFETY**

**OFFICES IN:** Boston, Buffalo, Cincinnati, Cleveland, Columbus, Detroit, East Orange, Houston, Los Angeles, Montreal, Philadelphia, Pittsburgh, Seattle, St. Louis, St. Paul, Toledo, Tulsa

***. . . The story of an organization dedicated to the work of reducing our industrial accident toll, a toll that is all too high . . .***

# IN THE PUBLIC'S INTEREST

**JOHN V. GRIMALDI,**
**Industrial Director**
**Accident Prevention Department,**
**Association of Casualty & Surety Companies**

SOME things a philosopher might never understand — the way of the waves on the water, the way of a man with a maid, the way of a person with his safety. Ask the question of yourself, "Why do people—reasonably intelligent people—take the unnecessary chances they so often do?" Can you find a sensible answer? The practicing of safety—like religion—should be universal. Instead its principles are followed by only a relatively few, the professional safety specialists, certain far thinking industrialists, administrators, and labor specialists who hope they can, through their vigor and intelligence, overcome the mistakes made by the others.

One professional group is the Accident Prevention Department of the Association of Casualty and Surety Companies—an organization composed of 68 leading capital stock casualty and surety insurance carriers. The occupational safety responsibilities fall upon that department's Industrial Division. This group may be considered unique for although it provides certain services to the public, it also develops specific materials for the use of its member companies, which are indirectly carried to the public through their ably staffed engineering departments. To serve the public directly would be impractical, because of the extent of the task, yet personal contact by the safety specialists is imperative.

The Association's Accident Prevention Department is not a statistics gathering agency. It is composed of the Public Safety Division, whose staff watches over traffic and home safety problems, and the Industrial Division where safety questions that fall within the industrial field are considered. To assist in the development of the answers, a library stacked with accepted texts and stuffed with other pertinent reference material is maintained. While no one would dare to discredit the value of statistics as a means for measuring performance, it is the considered opinion of the Industrial Division staff that too often the collection of data is done to the point where the solving of the problem is either overlooked, or cannot be accomplished for lack of time. Instead, operating on the belief that, for general hazards, the competent safety engineer knows from experience which hazards are the most critical and concentrating its investigations on the newer, more special hazards, a well rounded program has been developed.

## Engineering and Education

The Division's responsibilities have encompassed many fields of accident prevention work. The meeting of those responsibilities is done principally through complying with two of the "E's" of safety — "Engineering" and "Education."

Every attempt is made to develop educational material that will apply to areas not touched upon by other organizations. It is hoped that in its preparation, an approach is used which will make it attractive to the people it is referred to. Publications of various types compose the principal part of the educational program. An idea of the wide scope within which these publications fall may be gained from an examination of their titles.

The "Rule Book Series" which is distributable only through the companies composing the membership and their agents, forty thousand strong, is prepared in a three by five size so that any one of the booklets can readily fit in a worker's pocket. Their content is terse and pithy with appropriate illustrations interspersed throughout. They range from instructions on what to do when blasting, to how to safely care for an apartment house. Here are some of the titles:

*"Your Guide to Safety as an Automobile Service Station Employee"*
*"Textile Mill Safety Instructions"*
*"Office Building Safety Instructions"*
*"Your Guide to the Safe Use and Care of Hand Tools"*
*"Your Guide to Safety as a Hospital Employee"*
*"Are You Safe in the Office?"*
*"Women in the Factory"*
*"Your Guide to Safe Lifting"*
*"Your Guide to Safety as a Laundry Employee"*
*"General Safety Instructions"*
*"Off the Job Accidents and You"*
*"Your Guide to Safety from Low Voltage Hazards"*
*"Your Guide to Safety as a New Employee"*

*(Please turn to page 36)*

# IS THERE A DOCTOR IN THE HANGAR?

## ( or The life and times of

**Dedication**

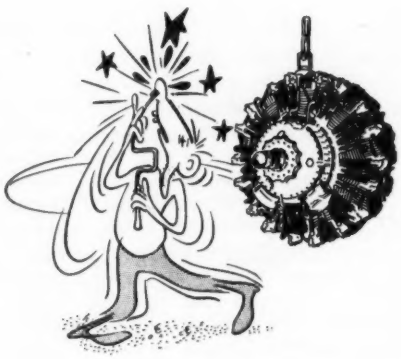
**. . . To all of the guys and gals who work in and around airplane maintenance hangars . . . To these, my faithful Cousins, without whose boundless inspiration this book would never have been printed . . . To these, I dedicate my story.**

### THIS ONE'S POSITIVELY *Ripping*
*or*
*Save the Bones For Henry Jones*

"I saw you last night . . . And got that old feeling . . .".

If memory serves me right, that was the song I was singing last Friday — no, it was Thursday — when, all of a sudden, I looked down and saw something running up my arm, lengthwise. Imagine my surprise when it turned out to be the leading edge of a saw blade. Now this upset me more than usual, for the reason that I had thought I was sawing a piece of lumber. Well, I pulled my arm out, blew off the sawdust and bone shavings and believe me when I say I could see clear through it to the floor. So, now, instead of having two arms, I have three.

This is one of the few times that my habit of singing, gazing around the shop, and dancing the conga, while at the same time operating a saw, has ever discomboberated me. Those other times — when I lopped off my chin, my navel and that wart on my right ear — weren't important, but they served to prove to me that it's possible to buzz around a hangar without ever moving from one spot.



### THE BIG *Stickup*
*or*
*Speedy But Bloody*

When I stuck a speed wrench up my nose, I wrote "Finis" to the end of a very interesting chapter in my career: I now have stuck everything into my proboscus.

At the age of 18 months, I started this fascinating game by shoving two imported gold-fish into my right nostril. Then, as kids will do, I let the cat go up after them. Later, when I was four, my papa picked me up by my heels and out rolled six marbles, a half pack of Camels, mama's shoe horn, and the left hind leg of a jackrabbit which I'd killed with a Pablum box in a graveyard at midnight on Friday the 13th.

I hadn't exactly planned on the speed wrench stickup job. When they were through disentangling it from my blower, they told me I should have made certain, before using it, that the wrench was in good condition. I also was told (1) I should have learned to operate it, and (2) I should have been looking at my work, instead of counting Stutzes as they passed the open window to my left.

I dunno. Have you ever had a red-headed nurse take your nose in her cool, soft hands and look down it with limpid, moonlit eyes? What a sensation!

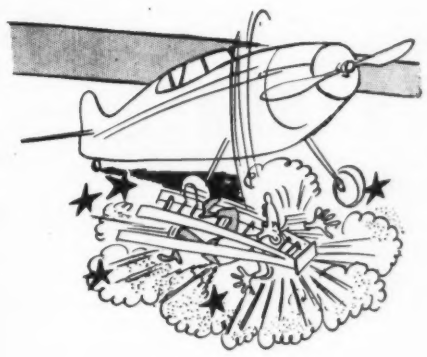
Careless Cal's life expectancy has been reduced to such an extent that he has employed a short, inconspicuous midget to follow him about with a hypo-full of embalming fluid.

A majority of the incidents portrayed in this book are modeled after actual demonstrations by a typically-faithful band of Careless Cal's follow-

# Careless Cal

Portrait of the Author

**The adventures of Careless Cal were actually written by Mr. Al Harting, Public Relations Director for Southwest Airmotive, Dallas, Texas. Occupational Hazards plans, starting with this issue, to reproduce all of Cal's experiences as similar accidents could easily happen in any kind of industrial establishment besides airplane maintenance firms—such as Southwest.**



## *Ladder* GO, BOYS!

*or*

*Timber!*

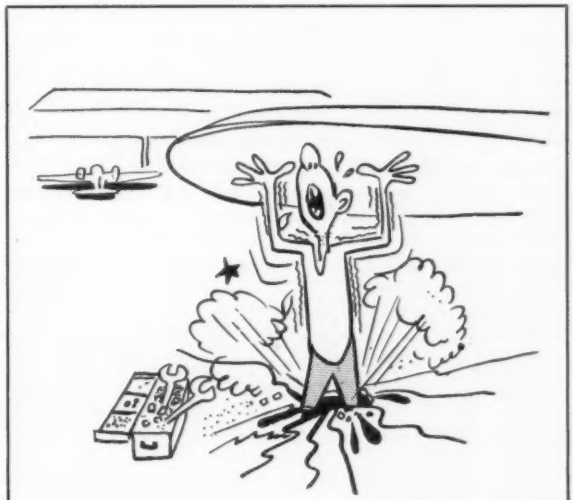
Ladders are strange things. They've got four legs, twice the number possessed by some people I know, and yet they can't walk, stoop, squat, bend over or touch the ceiling with their fingertips.

When you put a ladder somewhere, it'll either stand there stupidly, like a toadfrog in a 25 pound cake of ice, or it will sway stiff-legged like a drunken acrobat, and then fall flat on its face.

This means several things to the man fool-hardy enough to trust one of them. In the first place, if the ladder's in good shape and standing on level, solid ground, you can't get it to move anywhere when you're up there on the top trying to earn an honest day's living. So — unless you want to be a dangfool and climb back down to shove it around every few minutes — you have to lean forward, backward and to the right and left to reach where you want to reach. This puts you much in the same position as a tight-wire walker trying to slap bees at a level four feet beneath the wire. In the second place, if the ladder isn't standing solidly in the first place, then you might as well forget both places and just dive off on the floor. If you don't, the ladder will beat you to the draw and you'll go down together, your legs entwined in the rungs like a fishing worm in a lion's mane.

Yes, this is quite a problem. Drop your ideas, if any, in the suggestion box.

ers down in Texas. However, they could well be the employees of any industrial firm in the country. Mr. Cal received his basic inspirations from these Lone Star disciples, but the drawings and directions in this book bear certain refinements and embellishments which he added for purposes of emphasis.



## *Atlas?* —SURE, I KNOW THE GUY—

*or*

*Hey, Quit Shovin' Up There!!*

As you know, my name's Cal, not Jack. Nevertheless, I was trying to be a jack when I pushed up on that airplane wing. I didn't push the wing up much, but I pushed the concrete right on through to oil shale. My spinal column vibrated like a wet dog's tail in a light socket.

That was a month ago and since then I've been stooped over so low I can walk under a Culver Cadet without bending my knees. To kiss my wife the other evening, I put my smallest boy on a molasses can, set the can and the boy on a footstool, and then climbed on the kid's shoulders. By this means, I could reach my old lady's hand, which is where I normally kiss her.

Some folks, when desiring to h'ist up airplane wings, may prefer to use equipment provided for that purpose or to get someone else to help them. By resorting to such naive tactics, though, they will miss the pleasure of walking with canes in later life and of speeding through red lights in wheel-chairs.

A replica of the gummed sticker used by employees to mark hazards. The marker remains in place until the department foreman attests to its correction by signing his name.

# SKULL AND CROSS BONES FOR SAFETY!

WHEN pipe fabricating welders in the St. Louis plant of Midwest Piping and Supply Co., Inc., completed 278,978 man-hours without a lost-time accident, they got more than a pat on the back and a word of praise. An alert safety committee and the company itself saw to that. It was occasion for a plant-wide, company-sponsored celebration—entertainment and refreshments for not only every employee, but for every member of his family as well.

That celebration—topped off with refreshments to the tune of more than 2,000 ham sandwiches not only provided by the company, but actually prepared and served by top executives and office personnel—exemplifies the interest and enthusiasm which Midwest's management injects into its safety program.

The fact that the company's insurance carrier, American Mutual Liability Insurance Company, recognized the achievement by awarding a certificate to the 97-man department was significant. Midwest itself made even more of it. Executives invited all departments to help celebrate. They arranged the family night program last November to go with the insurance company's official presentation ceremony.

Behind the pipe fabricating welders' stretch of nearly 300,000 accident-free hours, which they went on to garner before falling to their first accident in 21 months, is something more than the hand of fortune. There's an effective plant safety program, sparked by perseverance and enthusiasm on the part of employee and employer alike, plus the drive of a hard-hitting safety committee continuously hypoed by the lively ideas of its ever-active chairman.

Erwin H. Telthorst, general maintenance foreman at Midwest's St. Louis plant, has been doubling in the safety chairman's job for 14 years. He's modest in claiming any personal credit for the safety program. When asked, he'll attribute all success to a cooperative management, to safety-conscious supervisors and to enthusiastic workmen.

These elements do exist, and whether or not the modest safety chairman will admit it, he's the sparkplug that keeps them going. This push is reflected, not only in the case of the one department's recent no-accident record, but as well in plant-wide results which show a drop from 34 accidents and 1,060 days lost in 1946 to 16 accidents and 128 days lost in 1948—this while hours of exposure increased more than 60 per cent! In terms of frequency and severity rates, this represents an advance from 42.43 and 1.31, respectively in 1946, to 12.23 and 0.098 last year for the plant's average of 675 employees.

The guiding philosophy of Midwest's safety program offers two fundamentals. One is a "talk-it-over" approach to every safety problem; the other is "keeping 'em reminded."

It's easy to make a rule. It isn't always easy to enforce one. That's where Midwest's "talk-it-over" philosophy comes into play, and here is an example of how it works.

Not long ago, the shop's "mule" drivers, those fellows who weave their trucks and lifts in and around all the plant's work areas, were put on the spot. Other workmen—and this illustrates the safety alertness of the em-

ployee group as a whole—complained that careless maneuvers of the drivers were creating a hazard to others working and moving afoot through the plant. Those fearful of their safety asked protection in the form of barricades to restrict truck movement, or, at the least, some stringent rules for protection.

### Cooperation

No barricades were erected, nor were any new rules set forth. But the problem has been solved. It was done merely by calling a meeting of all drivers and the men who had sensed the hazard. Together they aired the dirty linen. Drivers saw the point and have done away with the hazard voluntarily. After the heart to heart talk, they want to and do drive more carefully.

On another occasion, someone took note of hazards created when overhead crane operators picked up and swung heavy loads of Midwest's pipe fabrications from one work area to another. Up to that time, cranemen considered the making of safe ties on lifted loads solely a responsibility of the man on the floor. When a floorman signalled for a lift, the load went. Whither and whether it dropped was a worry for the man who made the hook-up.

Cranemen were taken into a huddle. Man to man, they were reminded of how they might feel if a load they carried caused someone an injury, regardless of who made the tie. Now every load gets a double check, with crane operators watching like hawks from above and refusing to make any lift that to them appears unsafe.

### Monthly Meetings

Midwest has a 37-man safety committee meeting once a month on company time. Here, again, the "talk-it-over" policy bears strongly on final results. Problems arising between meetings cannot always await committee action. When problems cannot wait, the plant superintendent and safety chairman take action. Problems that can wait, come up without fail at the next committee session. The chairman and the superintendent never throw out a problem, an idea or a recommendation. The matter either receives positive action in the emergency or it goes to the committee, which makes final decision and which is the only body with authority to decide on negative action.

This policy applies to recommendations following an accident investi-

*(Please turn to page 37)*

**Midwest's top executives prepare and serve 2,000 ham sandwiches at the celebration held in honor of the pipe fabrication welders who completed 278,978 man hours without a lost time accident.**

**The approach to safety at Midwest follows a policy of talking over safety problems on the trouble spot to gain an understanding among persons concerned. Result: More willing cooperation—fewer strict rules.**

**Over the exit doorway at Midwest Piping and Supply Co. is the safety slogan for the month. Above vending machine is a sign and red light indicating safety delinquent departments. Safety scores for all departments on large board at left.**

# ORGANIZING FOR FIRE PREVENTION

By JAMES A. WALDRON
Safety Engineer, Packard Electric Division,
General Motors Corp.

FIRE PROTECTION FOR INDUSTRY SECTION

FIRE losses for the first nine months of 1948 were estimated by the National Board of Fire Underwriters to be $536,923,000 as compared to $517,982,000 for the same period in 1947. If the present trend continues, the total loss for 1948 will be in excess of $700,000,000. There were 538,000 building fires in the United States in 1947.

What about this problem in industry today? Does it warrant our immediate attention? Approximately 70% of the building fires in 1947 occurred in industry. The toll is mounting every day and the tremendous loss in life and property is all so needless.

This article has been written with the idea that it may be of some value in establishing a fire prevention program in your plant, whether it be a small concern or a large manufacturer.

## Basic Fire Prevention Principles

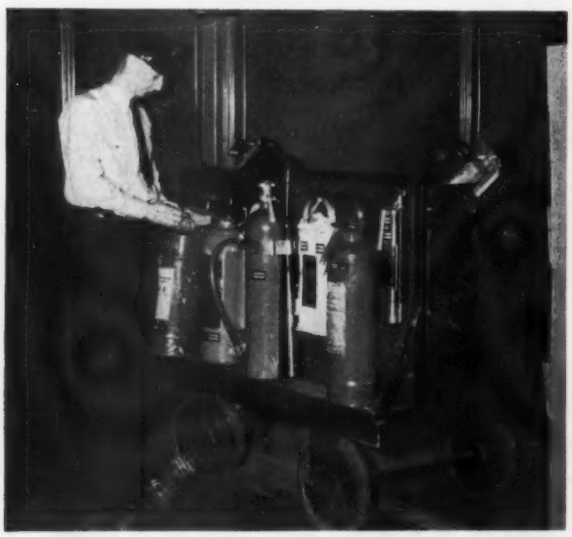
There are many effective programs in industry today. It is agreed, however, that all effective fire prevention programs must include some or all of the following five basic principles.

1. Plant Housekeeping
2. Fire Brigades
3. Portable Fire Extinguishers
4. Automatic Systems
5. Maintenance and Inspection

Each of the five basic principles will be discussed briefly in the order listed.

Good housekeeping in any plant is essential not only from the accident prevention and efficiency standpoint, but from the fire prevention standpoint as well. Very few fires occur in plants that are clean and orderly because most of the common causes of fires have been eliminated. Good housekeeping covers many items and conditions of the plant. The following items are the most important from the fire prevention standpoint:

**Material Storage:** All combustible materials should be stored in a neat and orderly manner, accessible on all sides. Large amounts of combustibles should be separated by aisleways, or fire breaks, to control or prevent any spread of fire. This will also eliminate serious damage by water to the entire stock. Aisleways should be plainly marked and kept clear at all times to provide free access to fire extinguishing equipment. Stock or material should never be stored so that it completely



Inspection and maintenance of extinguisher equipment.

Demonstration and practice in the use of portable extinguishers by brigade members.

surrounds or blocks fire extinguisher equipment.

**Flammable Liquids:** Flammable liquids should never be stored unprotected in open containers and all containers of flammable liquids should be plainly marked. Small amounts of flammable liquids should be stored in approved safety containers. Where quantities of oil, gasoline and other flammable products are not sufficient to require large storage tanks, an oil house for the storage of these substances in barrels, drums or other suitable containers is recommended. This storage house should be located a safe distance from all other buildings so they will not be endangered in the event of fire. All codes and regulations should be followed for the storage of flammable liquids.

**Waste Disposal:** All waste materials such as paper, sawdust, excelsior, etc., should be removed daily. Self-closing metal containers should be provided for oil-soaked waste and rags to prevent spontaneous ignition. Waste containers such as sand pails should be provided for the disposal of cigarettes and matches in smoking areas. Flammable liquids which can no longer be used should never be emptied into sewage systems or drains. These liquids should be emptied on the ground and burned a safe distance from any buildings.

## Organization of Fire Brigades

Many manufacturing concerns today have active Plant Fire Brigades. Under no circumstance, however, should any plant rely on this brigade to replace the city or municipal fire department. They are to be relied upon as an emergency group only.

Fire brigades are usually organized in the following manner: Each department head selects a number of employees from his department as requested by the fire chief or personnel in charge of the fire department. The members selected are equally divided on all shifts. After the fire brigade members have been chosen, meetings are scheduled by the fire chief. At these meetings the brigade members are schooled in the following:

1. Plant Housekeeping.
2. Location of extinguishers, hose, hydrants in their immediate area.
3. Fire alarm signal system.
4. Training and use of extinguishers, fire hose, etc.
5. Evacuation.
6. First aid and artificial respiration.

**Training of fire brigade members in types and uses of equipment.**

After the fire brigade has been fully trained, regular meetings should be held at least once a month. At these meetings members can be kept informed on plant changes, processes, methods, and given additional training in the use of equipment, etc. An accurate record should be made of the attendance at every meeting. Inactive members should be replaced and vacancies filled to maintain the brigades at full strength.

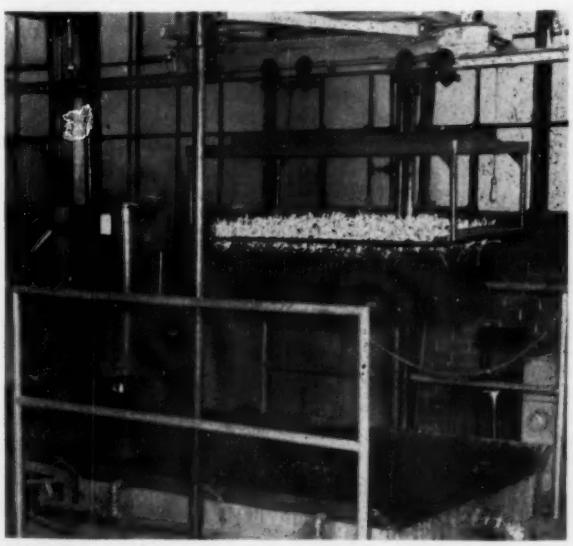
## Portable Fire Extinguisher Equipment

Portable fire extinguishers are first aid devices to cope with fires in their incipency. They are considered necessary in addition to any automatic systems. There are many types of portable extinguishers available today. Each type is of value, but all are not equally effective upon various kinds of fires.

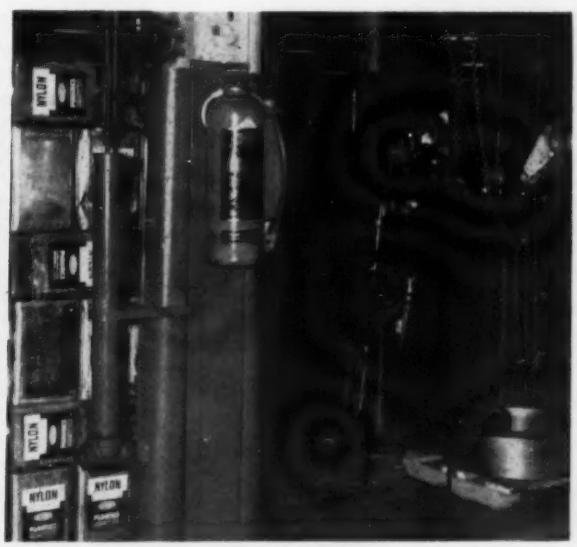
The various types of extinguishers are classified as follows: Water, A; Foam, A-B; Vaporizing Fluid, B-C; Dry Chemical, B-C; Carbon Dioxide, B-C.

**Automatic Sprinkler System:** There are three types of automatic sprinklers in general use today—the wet, dry and open systems. The wet system is for use in buildings that are heated throughout the winter months and utilizes water standing constantly under pressure throughout the entire system. It is ready to spray when a sprinkler head opens at a given fixed temperature.

*(Please turn to page 39)*



**Automatic foam extinguishing equipment over dip tanks.**




**Extinguisher equipment plainly displayed and easily accessible.**

A REPORT ON THE ORGANIZATION OF THE

# OHIO FIRE BRIGADES ASSOCIATION, INC.

## — A possible pattern for all States —

by
**L. E. SHINGLEDECKER, Chairman**

AS this article is being written, it has been published that the estimated fire losses for 1948 were $710,000,000 and statistics show that this figure may be materially exceeded in 1949. Fire losses mean that this amount of the countries resources are gone forever.

Industrial fire brigade programs can do much in reducing industry's part of this annual loss. Such programs are not new as has been said many times before, but during the years there has been one weak point, that being the lack of an organization for coordinating the thinking of brigade leaders in a city, community, or a state. This condition not only exists in Ohio but seems to exist in all states that I have come in contact with during the last two years.

Industry, a group who are the backbone of a community, has always had to rely on other organizations for the training and outside activities. We feel it is time that this group starts standing on their own two feet. They should not only improve their own selves but should help others wishing to become a part of such a worthwhile program by having their own fire brigade organization.

Another problem that exists is that there are a lot of brigades already established in towns not having enough industry to justify a local brigade chiefs association.

With these thoughts in mind a group of progressive industrial leaders were called together with the thought in mind of organizing a State Association which by its charter is a non-profit association and goes under the name of OHIO FIRE BRIGADES ASSOCIATION, INC.

The acting officers are:
Chairman—Mr. L. E. Shingledecker
The Mill Mutuals
Columbus, Ohio
Vice Chairman—Mr. W. F. Ballard
Columbus Coated Fabrics
Columbus, Ohio
Vice Chairman — Mr. Robert Young
Youngstown Sheet and Tube Co.
Youngstown, Ohio
Secretary—Mr. Raymond Hart
Dayton Rubber Co.
Dayton, Ohio
Treasurer—Mr. Charles E. Nicklas
Crowell Collier
Springfield, Ohio

The Ohio Fire Brigades Association, Inc. will have two projects for the year of 1949. (This year runs from 7-1-49 to 7-1-50)

No. 1 Project—Conduct an all day conference sometime in the fall. At this conference we will have nationally known speakers to present activities pertaining to Industrial Fire Prevention and Fire Fighting. The cost to our members being $1.00 registration fee.

No. 2 Project—Conduct a school pertaining directly to Industrial Fire Prevention and Fire Fighting. This will be a three day school. Our membership can send as many representatives as they see fit with no charge for the schooling. Each company will be responsible for their member's board and room.

The annual membership fee is $10.00.

The acting Board of Directors are as follows:

Mr. E. J. Wiseman
Standard Cash Register Co.
Dayton, Ohio
Mr. Everett Crabtree
Crowell Collier
Springfield, Ohio
Mr. W. F. Ballard
Columbus Coated Fabrics
Columbus, Ohio
Mr. J. R. Chambers
The Champion Paper and Fibre Co.
Hamilton, Ohio
Mr. L. O. Mankin
Champion Spark Plug Co.
Toledo, Ohio
Mr. Robert Young
Youngstown Sheet and Tube Co.
Youngstown, Ohio
Mr. Raymond Hart
Dayton Rubber Co.
Dayton, Ohio
Mr. Boyd Holsapple
Oliver Corp.
Springfield, Ohio
Mr. Charles E. Nicklas
Crowell Collier
Springfield, Ohio
Mr. J. E. McDowell
Ralston Steel Car Co.
Columbus, Ohio
Mr. D. E. Straiton
The B. F. Goodrich Co.
Akron, Ohio
Mr. George Reed
Shellmar Products Corp.
Mt. Vernon, Ohio
Mr. Herbert Hackbarth
Jeffery Mfg.
Columbus, Ohio
Mr. C. G. Noonan
Cooper Tire & Rubber Co.
Findlay, Ohio
Mr. Kenneth Cook, Safety Director
Spicer Mfg., Div., of Dana Corp.
Toledo, Ohio
Mr. Horatio Bond
National Fire Protection Association
Boston, Massachusetts
Mr. Charles Scott
State Fire Marshals Office
Columbus, Ohio
Mr. Don Wood
Fyr-Fyter Co.
Dayton, Ohio
Mr. R. G. Textor
Sun Oil Co.
Toledo, Ohio
Chief Frock
Springfield Fire Department
Springfield, Ohio
Mr. Ray Ory
Libbey-Owens Ford
Toledo, Ohio
Mr. Ross Douglas
Frigidiare Div.
Dayton, Ohio
Mr. J. W. Huntington, Manager
Mill Mutuals, Ohio Department
Columbus, Ohio

The entire program has the active support of the National Fire Prevention Association who at all times will render whatever assistance may be necessary to make this State Association of the utmost value to its membership.

*(Editor's note: Any person interested in this organization can get detailed information from the author of this article. His address is 22 E. Gay St., 6th Floor, Columbus 15, Ohio)*

## *Air Conditioned Crane Cab . .*

# SAFER OPERATOR

WHEN cranes are operating over "hot spots", or in air that is contaminated by dust or fumes in steel mills, foundries, chemical plants and other industries, it is necessary to protect the operator by "conditioning" his cab.

Recent developments in the air conditioning of crane cabs have demonstrated that it is possible to minimize this health hazard by the installation of a self-contained cooling unit.

In the past, many different methods were employed in an attempt to improve the extreme conditions under which some crane cab operators work. At first, large fans were used but these accomplished nothing more than to exchange hot air for hot air. Wetted burlap hung over the fan intake lowered the temperature slightly but it remained too hot in the cab. Moreover, this did not remove fumes and gases. Sufficient water could not be stored in the cab to keep the burlap wetted down, as the makeshift filter dried out quickly. Time was wasted in stopping to pour water on the burlap.

When cakes of ice were installed in special chambers to "refrigerate" the air, the problem of disposing of the water resulted. Dry ice was tried about 20 years ago. It lasted longer than frozen water and did not drip. Special crane cabs were built with dry ice compartments, blowers and dust filters. It was the first real attempt to make an "air conditioning" unit part of the cab. There was no control, however, for such systems and no method of removing fumes or gases.

When air conditioning units using water for condensing were developed for crane cabs about a dozen years ago, many other problems presented themselves. Water storage was the chief disadvantage. Besides having to refill tanks frequently, water absorbed heat from the surrounding high temperature air and became so warm that it was virtually impossible to condense the refrigerant.

In 1943, Dravo Corporation of Pittsburgh began working on a crane cab cooler that used air as a condensing medium and required only electrical connections for installation and operation. Fume removal equipment was incorporated in the unit. Performance of a test installation in a crane cab operating over lead vats led Dravo to start production of a standard unit for general industrial use. The need for ice, water, water storage tanks and piping was eliminated.

The first of these units was installed two years ago on a 185-ton ladle crane in the Aliquippa Works of the Jones & Laughlin Steel Corporation.

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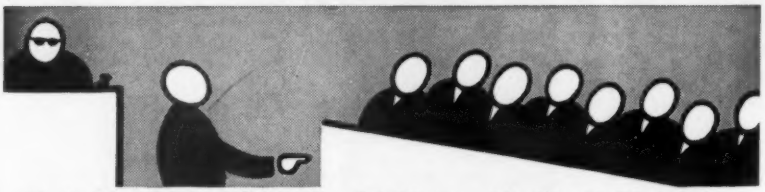
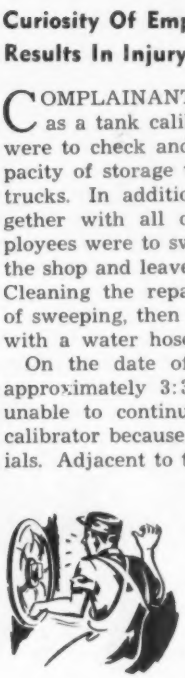


# RIGHT OFF THE DOCKET

## Curiosity Of Employee Results In Injury

COMPLAINANT was employed as a tank calibrator. His duties were to check and measure the capacity of storage tanks mounted on trucks. In addition to this, he together with all of the other employees were to sweep and clean up the shop and leave it clean at night. Cleaning the repair shop consisted of sweeping, then washing the floor with a water hose.

On the date of the accident at approximately 3:30 P. M., he was unable to continue his work as a calibrator because of lack of materials. Adjacent to the room in which he worked, there was a paint room where a new 24 inch exhaust fan was installed about a day or two prior. Out of curiosity, the claimant went into the paint room to see how much air the exhaust was pulling through it. He thought he could feel it without hitting his hand. His hand was flipped and before he knew it, the tendon of his right hand was severed and injury sustained to his thumb and first finger.



Question arises as to whether the injury resulting to the claimant was caused by reason of his employment. The injury, to be a basis of a cause of action under the Workmen's Compensation Act, must be one arising out of and in the course of employment. The phrases "in the course of" and "arising out of" are not synonomus. They are used conjunctively and a definite condition is imposed and both must exist to bring a case within the act.

Claimant had no duty or obligation concerning the operation, inspection, care or maintenance of the fan. The fan was a fixture and was not a machine for the conduct of the business of the employer. It was properly installed and presented no danger not incident to any such device. Simon had no more occasion to go to the fan and test its operation than he would have to go to the place of a circular saw or any dangerous machine that might be properly installed for the conduct of the business for the purpose of testing whether the saw or machine was in motion.

He had completed all of his work on that day before the fan was put in motion. He had no business in the paint room which was thirty feet away from the wash room and repair shop where he was employed. He was not in the pursuit of any duty of his employment or anything even remotely incident thereto. He attempted to test a fixture of which he had no concern, duty or responsibility; placed his hand in close proximity to the fan for the sole purpose of satisfying his curiosity.

The accident had no connection with his employment in any manner reasonably necessary or incidental to the work of his employment. The fact that he was at the place of employment at the time of his injury inasmuch as the paint room was a part of the employer's premises has no bearing upon his right to recover. He left the line of duty under his employment for a purpose of his own and he pursued it to his injury. Had he remained where he belonged, he would have been in a position of safety which was a considerable distance from the fan.

He was not deemed to have received the injuries in the course of his employment even though he was in the general sphere of the place of employment, he was not engaged in doing some duty for which he was employed or reasonably incidental thereto.

Claim denied.

Simon vs. Standard Oil Company, 36 Northwestern Reporter, Second Series, Page 102 Supreme Court of Nebraska, September 14, 1948.

## Dust Exposure No Accident

Eugene Chapman was a regular employee of the Allyn Ryan Company, a contributor to the state insurance fund. He was employed as a hand grinder. The record discloses that the place where the decedent worked as a grinder was about 75 feet from two sand blast machines which were enclosed in steel booths. On occasions the hose carrying sand to the sand blast operation would break, causing dust clouds outside the booths. The grinding operation in which the decedent was engaged created some dust. The decedent wore a mask while at work.

On the afternoon of June 22, 1942, while he was at work under the usual and ordinary conditions, the decedent was seen going toward the dispensary spitting frothy blood. He was given aid in the dispensary and then taken to a hospital where his condition was diagnosed as pulmonary tuberculosis. He was released from the hospital and subsequently died as the result of said condition.

Claim is made on the theory that the decedent suffered an injury or that death resulted from an injury suffered while acting in the furtherance of and in the course and scope of the employee's duties. The regular operation of the foundry caused some dust and the job of grinding rough spots from finished castings which was the work of the decedent caused particles of dust and metal to fly in the air.

There is nothing in the record to indicate that on the date of the day in question there was an occurrence changing or increasing the amount of dust beyond that experienced in the normal operation of the foundry. It has been repeatedly held that Workmen's compensation does not come to claimants in the form of a pension. In other words, it is not the "wear" but the "tear" that is compensable, leaving occupational diseases out of consideration as a matter of course.

There being nothing to indicate that death proximately resulted from inhalation of dust other than the usual conditions which existed in his daily toil, there could be no recovery.

Claim denied.

Chapman, et al -vs- Industrial Commission, Court of Appeals of Ohio, Cuyahoga County May 10, 1948. 81 N. E. Second, Page 626.

## Employee Failed To Comply With Employer's Safety Regulations

EMPLOYEE wanted to recover 50% to 75% for total disability and disfigurement plus 50% penalty for the claimed failure of company to furnish reasonable safety device for his use and for failure to provide a guard for an elevator.

Company resisted the claim contending that the disability was confined to 25% loss to the use of claimant's arm based upon amputation to the shoulder and that his claim should *be reduced 50% for failure to use safety device provided for employees in the form of two electrical switches controlling the operation of the bucket elevator and to comply with further requirements of the safety regulation.*

At the time of the alleged injury, the employer had in force the following safety rules, among others: (a) No employee shall remove, displace, damage, destroy, carry off or fail to use any safety device, safeguard, notice or warning or interfere with the use of any method or process adopted to the protection of the employee or fail or neglect to follow and obey safety orders promulgated by the Department heads or Safety Engineer, or interfere in any other way with things reasonably necessary to protect the life, health, safety and welfare of the employees, including himself. (b) Electrical equipment must have the control switches locked in the open position before repairs are started.

There was also a rule in effect that when an electrical switch was locked open, it must be tagged with warning tags which were furnished by the employer. This rule was not followed in the instant case.

Claimant and members of his crew were directed to repair a bucket elevator used for carrying potash from the ground level to the top of the refinery. Power was furnished by an electrical motor and cut off switches were installed at the top of the elevator and at the bottom.

After receiving instructions to make the repairs, one of the claimant's associates locked off the upper switch with a cotter key and tested it with a screw driver to see that the current was shut off, but neither the claimant nor his associates locked the switch at the bottom or attached a warning tag.

The workmen then took off a steel plate which covered and served as a guard for the ore buckets and the claimant then entered the elevator. While he was engaged in the repairs, the current was in some manner turned on at the lower switch which caused the bucket elevator to start and so injure the claimant.

*The Compensation act requires compliance by the employee with the use of the safety devices provided, otherwise, the compensation payable shall be reduced by 50%; and provides in the alternative where injury or death results to a workman from the failure of an employer to provide the safety devices required by law for the use or protection of the workmen, that a claimant's claim for injury or death shall be increased by 50%.*

In the instant case, the claimant violated the rules of safety promulgated by the company and had he so done, he would never have incurred the injuries complained of. It was his duty to follow and obey the safety rules or the orders issued by his employer.

The jury concluded that the employee failed to adhere to the rules and regulations and that such failure was the direct cause of starting the machine and that the electrical switch provided for by the employer was a safety device and that since the claimant failed to lock such switch on the switch panel or failed to tag same with a "danger tag", furnished by the company for such purpose, and the bucket, therefore,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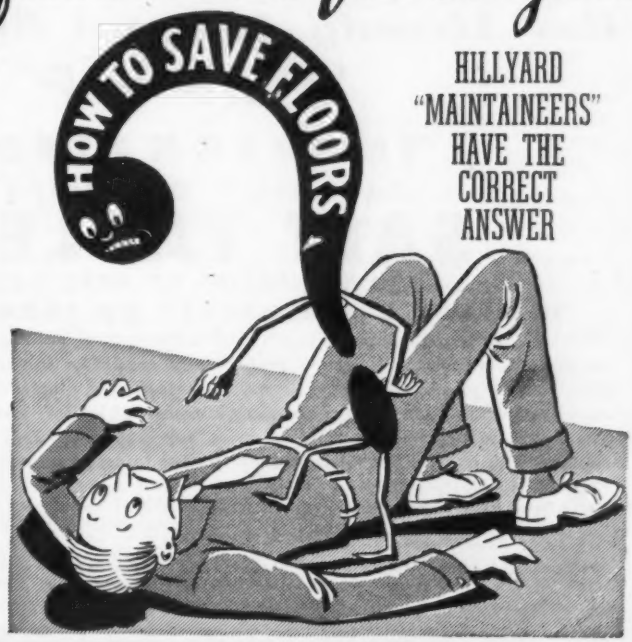


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being accidentally started while he was making repairs thereon, the bucket would not have started unless someone had pushed the switch on the panel board and had the complainant complied with the safety regulations provided for his use, the accident would not have happened.

Claim was allowed, therefore, 50% total disability because of his own negligence.

Jones vs. Industrial Minerals and Chemical Corporation, etal, Supreme Ct. of N. M., September 16, 1949, 202 Pacific Reporter, Page 1080, Second Series

### Target Practice By Company Guard Results In Deafness

CLAIMANT was employed by the Boeing Airplane Company to serve as an assistant instructor of guards at the company's range. This service covered a period from June, 1943 to December 16, 1944. On the latter date, pistol range practice was discontinued and the claimant continued in the company's employment as a guard in its lobby. Thereafter, claimant returned to the pistol range for practice with other guards for a three hour period. One day during July, 1945 his injury occurred. Claimant filed common law action against the company for damages resulting from loss of hearing by reason of the violent intensity and high pitch of gun fire explosions at the rifle range.

It is the contention of the company that claimant's redress is solely under the Workmen's Compensation Act by reason of the fact that the injury was by accident and arose out of and in the course of his employment.

The claimant vigorously contends that a common law action can be maintained under the circumstances, contending that the company was negligent in the construction of the indoor pistol range in that it did not constitute a reasonable safe place for pistol firing; that because of its construction, he was in close proximity and subject to constant and continuous explosions of a .38 caliber pistol for long periods of time; the violent intensity and high pitch of gun fire explosions reverberated against the walls, ceiling and floor and continued for an abnormal length of time; that such continuous and extended periods of gun fire, gradually, and not at any definite time, impaired his hearing, and that this would not contemplate an action within the laws of the Workmen's Compensation Act.

Claimant contended further that his injury was in fact a result of a disease incurred rather than as a result of a trauma. The medical testimony, however, revealed that the injury received by the claimant was due strictly to a trauma which was the direct cause and deterioration of the little nerve ends in the ear. All of the elements of an accidental injury under the Workmen's Compensation Act are present herein. The accidental injury occurred suddenly, undesigned and unexpected. Each shot affecting claimant's hearing was sudden. The resulting permanent injury from the repeated and successive shots was undesigned and unexpected.

The claimant's physical structure was definitely broken down by accidental injury. The trauma deafness could not be considered an industrial disease, as it was definitely caused by trauma.

Common law action dismissed and recovery allowed under the Workmen's Compensation Act.


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Winkelman vs. Boeing Airplane Company, 203 Pacific Reporter, Second Series, Page 171
Supreme Court of Kansas, March 5, 1949

### Intoxicated Passenger Injures Cab Driver

WILLS was the owner of his own car which he operated as a taxicab under a contract between the Cab Company on the one hand, and the Taxi Cab Drivers' Union, as the agent or representative of the drivers, on the other hand.

On December 30th, 1940 at 11:30 P.M., Wills was injured in a fight with an intoxicated passenger while operating his cab under such contract. The company does not question the extent of his disability or the amount of the award, but claim that at the time of the accident, Wills was an independent contractor and not an employee of the company; and further that whatever injury was sustained resulted in an altercation precipitated by the cab driver.

The record revealed definitely that Wills was completely governed by the operating laws of the company in every regard and there was only one conclusion that could be arrived at and that was that Wills was not an independent contractor, but that he was an employee.

There were three passengers in the cab; one man and two women. The man admitted that he had been drinking. They entered claimant's cab at a night club while he was engaged in telephoning the Cab Company dispatcher, and after he had started to take them down town some question arose as to where they would go and what the fare would be.

There was some argument as to the amount and destination, and as a result, the cab driver returned the passengers to the night club and there attempted to unload them, and in the course of such unloading engaged in a fight with the man passenger and received the injuries complained of.

Contention of the Company was that the claimant was intoxicated as well and that his injuries were occasioned by his willful intention to bring injury to himself or another. There was very slight evidence to indicate that the cab driver was under the influence of liquor. No one smelled any liquor on his breath and there was no evidence to show any act of the claimant which would indicate that he was intoxicated. The witnesses thought that he was under the influence of liquor. Cab driver's account of the accident justified the belief that the injury resulted from the intoxication of his male passenger. Hence there was failure of proof that the altercation was due to the cab driver's attempting to make an excessive fare charge, but was due in part to the indecision of his passengers as to the point of destination.

Recovery was allowed.
Yellow Cab Co., et al vs. Wills, et al, Supreme Court of Oklahoma, Oct. 14, 1947

185 Pacific Reporter, Second Series, Page 689

### Employee Injured On Roadway Not Leased To Employer

WANDA BASINSKI was employed at the Lyndhurst plant of the Detroit Steel Corporation. It was located on a tract of land which was originally used for railroad purposes and is traversed by numerous railroad sidings used in the operation of the plants occupied by ten different companies under leases by the railroad.

The record discloses that the area is enclosed by a wooden or wire fence; that there are two entrance and exit ways, one of which may


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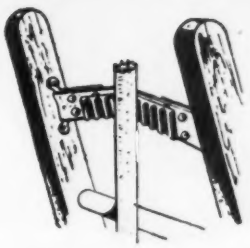

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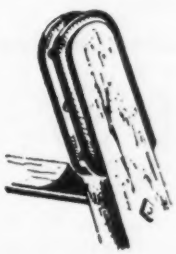

SAFE-HI WALL GRIP

- Holds top of ladder securely on smooth walls. Also helps hold bottom of ladder. Screws are in groove, out of way. Screw holes spaced equally so grip can be shifted when worn. Grip can be recessed flush with ladder surface.

Both can be installed on the same ladder, with ladder shoes, without interference.

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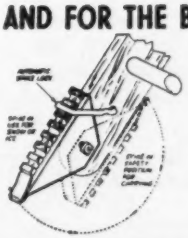

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conveniently be designated as Schuyler Avenue and the other as Marren Avenue. The Schuyler Avenue way is used by trucks and other vehicles as well as pedestrians; had no sidewalks and leads from the company's plant directly to the public highway.

The Marren Avenue way included a short gravel or dirt path from the plant to a nearby sidewalk and a dirt roadway from the other end of the sidewalk to the Marren Avenue exit.

Claimant had been employed by the company for three years. She contended that on her way home from work she customarily used the Marren Avenue way as did many other employees. There were no signs whatever indicating what passageway should be used to and from work and that no one had ever spoken to her about the subject. The only sidewalk in the area was one that constituted part of the Marren Avenue way, and she believed that passageway to be safer and shorter than the Schuyler Avenue way.

The record indicated that 50% of the employees or more used it in

preference to the Schuyler Avenue way which was described as "too dangerous" because of its use by trucks.

On November 26, 1946, when claimant left the plant building on her way home via the Marren Avenue way and before leaving the exit at the public highway, she tripped over a railroad switch, fell and sustained permanent injuries.

Company resisted the claim on the grounds that if the claimant used the Schuyler way she would have been entitled to an award, but having used the Marren Avenue way which was not authorized, that her travel thereupon from which injuries occurred prevented recovery as the accident did not arise out of and in the course of her employment. There was testimony in the record by a company agent that according to the lease held with the railroad company, that the Schuyler Avenue way was available for ingress and egress and that he knew of no other means, and that the Marren Avenue entrance was just a private entrance.

An award was allowed as the testimony established that the Marren Avenue way had been used expressly and continually by the claimant and other employees over a long period of time and that no objection had ever been voiced by the company.

There was nothing to indicate that the employee's attention had ever been brought to the lease between the railroad and the company, indicating the absolute use of the Schuyler Avenue way rather than the Marren Avenue way or that there were any signs or markings directing the employees to this effect.

In the absence of sidewalk, its frequent use by trucks and other vehicles supported the employees belief that the Marren Avenue way was safer. The employee was, by implied consent of her employer, using a means of ingress and egress which was to her mind safer and shorter and the use thereof was incidental to her place of employment and the accident, therefore, compensable within the Workmen's Compensation Act, as having arisen out of and in the course of her employment.

Basinski vs. Detroit Steel Corporation, Superior Ct. of N. J., March 16, 1949, 64 Atlantic, Second Series, Page 459

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Many plants using DRYBROWS report a 12 to 15% increase in production in certain departments with 10 to 20% less man power turnover during the hot months.

DRYBROW'S reinforced cellulose sweatband absorbs 20 times its weight in moisture. All pure, natural rubber headband is self-adjustable — light weight and will not curl. Floating headband feature eliminates tension — makes DRYBROW light as two feathers to wear. Easy to clean and absolutely sanitary.

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# INDUSTRIAL

# Accidents in the News . . .

**These accidents are taken from the pages of the nations Newspapers. They've all happened—they didn't have to!**

**Parkersburg, W. Va.,** Sentinel:

Walter Smith, 25, was treated at the Camden-Clark Memorial hospital shortly after noon today after having two fingers of his right hand cut off close to the middle joints at the Penn Metal Co. where he is employed. Plant officials said Smith slipped and as he fell, his foot hit a lever which set a punch press in operation. Attempting to catch himself, Smith clutched for a hold on the machine and his fingers fell under the press. He was brought to the hospital in a Shaver and Byham funeral home ambulance.

*Prevention:*

A guard should be placed over foot pedals of punch presses so falling objects or persons can not accidentally start the press. These guards are so designed that only the operator, standing directly over the pedal, can start the press. To do so he must first insert his foot under the guard and on the pedal. Avoid slipping and falling accidents by regular floor maintenance, including the use of oil absorbents around machines throwing oils or greases.

◆

**Kansas City, Mo.,** Times:

A backing truck crushed Leonard Cowee, 23 years old, a laborer on the new city water main, against a concrete pipe at 4 o'clock yesterday afternoon. He suffered chest, back and internal injuries and was taken to St. Mary's hospital. The truck was being backed into position so a crane could unload its cargo of 36-inch concrete pipe. Cowee was caught between the vehicle and a 7,300-pound pipe section that was lying on the ground.

*Prevention:*

Teamwork and safety on the minds of all crew members! Someone should have been in a position to direct the backing truck driver and to warn him that a worker was in his way. Drivers of vehicles operating in and around crews of men should be constantly aware of their responsibility in preventing accidents. If a truck driver can't see what's behind him he shouldn't back his truck until someone can safely direct him, nor should he take any other chances that might jeopardize the safety of men working near him.

◆

**Hagerstown, Md.,** Mail:

Rodney Tucker was admitted to the local hospital this morning sustaining a possible fractured skull, a fractured right arm and numerous lacerations as a result of falling into a buzz-saw at the K. and S. Pinwood Co., North Foundry street, where he is employed. He apparently lost his balance when he was applying a belt dressing to his machine, the manager of the pinwood company reported.

*Prevention:*

Numerous reports are received each month about injuries suffered by persons attempting to apply belt dressing to moving machine belts. All of these injuries can be classed as unnecessary and due to ignorance of all published safety regulations on this subject. *BEFORE ANY DRESSING IS APPLIED TO A MACHINE BELT, THE MACHINE MUST FIRST BE SHUT DOWN.*

◆

**Troy, N. M.** Record:

Tommie Smith, employee of the Carbonic Chemicals Corp., at Solano, while helping at an odd job at Troy sustained injury which will incapacitate him for some time. While helping to unload barrels of oil, two of the containers weighing 600 pounds each rolled off the truck and struck his left foot, breaking the artery and bone.

*Prevention:*

If mechanical means were used to unload the truck this man probably would not have been hurt. Besides portable chain hoist outfits, there are many other mechanical means of unloading barrels, including special portable elevators, lift trucks, etc. As an extra precaution, all men doing this sort of work should be wearing safety shoes.

◆

**Philadelphia, Pa.,** Bulletin:

Henry (Reds) Rauch, 39, a former prizefighter here, was crushed to death by a steel beam yesterday at his job in a Lansdale structural steel mill. The beam slipped from a crane and fell on Rauch's chest and right arm about five minutes before noon quitting time. He was killed instantly. He is survived by his wife and a son, Henry, Jr., 14. Funeral services will be held in St. John's Lutheran Church.

*Prevention:*

Crane operators and hookers-on should be thoroughly experienced and qualified for their jobs. Such men are trained in safety. An experienced crane operator will not move a load if there is the slightest question in his mind that it is unsafe to do so. An experienced hooker-on will not give the crane operator the signal to lift a load until he is sure it is securely fastened. It is up to the hooker-on to see that persons do not walk under suspended loads. There are many other published rules (too numerous to list here) pertaining to safe crane operation that tend to prevent the type accident described in the above news item.

# Useful Literature

**USE THE POSTCARD BOUND IN THIS ISSUE FOR YOUR COPY OF LITERATURE FEATURED HERE**

**UL-1** . . . A completely new and timely 16 page booklet on liquid soaps and soap dispensing equipment is available from the West Disinfecting Co. This new soap describes the various types of soaps available to industry and devotes considerable space to newly designed, modern functional soap equipment which has been developed by the company to provide the most economical and efficient means of dispensing liquid soaps. Fully illustrated with both photographs and diagrams.

For further information please circle UL-1 on the special postcard enclosed in this issue.

**UL-2** . . . The Fyr-Fyter Co. have prepared several pamphlets describing the FYR-FYTER INSTANT Extinguisher. These pamphlets pictorially record tests of INSTANT'S efficiency in putting out a gasoline-wood fire in 11 seconds. This extinguisher, besides being essential to industrial establishments, is also especially adaptable to give protection against mobile equipment fires.

For further information please circle UL-2 on the special postcard enclosed in this issue.

**UL-3** . . . American Allsafe Co., Inc. now have available literature on the 1949 DRYBROW, "the nation's sweatband." DRYBROW is described by the manufacturer as being the only reinforced band, assuring it lasting three to five times longer than ordinary bands. DRYBROW is especially designed to remove the hazard of sweat blinding the eyes of the worker.

For further information please circle UL-3 on the special postcard enclosed in this issue.

**UL-4** . . . The Gro-Cord Rubber Co. have just published three informative pamphlets covering the features and many suggested uses for their famous industrial soles—Neo-Cord, Gro-Cork and Gro-Cord. The pamphlets point out many of the specific working conditions for which each sole is best suited. Such information is of value to men who are in charge of safety programs or plant stores. It will enable them to do a better job of specifying the correct sole for the particular job.

For further information please circle UL-4 on the special postcard enclosed in this issue.

**UL-5** . . . Natural rubber, plastic and "Neox"-coated work gloves for industrial use are pictured and described in Edmont Mfg. Co.'s new 12-page pocket catalog. Styles include knit - wrist, gauntlet and safety-cuff—with palm coated only or coated all over. The catalog contains a handy, comparative wear qualities chart to aid in selecting the type of glove best suited to the user's specific work conditions.

For further information please circle UL-5 on the special postcard enclosed in this issue.

**UL-6** . . . Available are copies of the latest Stonhard Stontite Folder which gives complete information on how to stop leaks—from actual breaks to hair-crack water-seepage —in all types of above and below ground masonry construction. Especially recommended for basements, foundations, tunnels, elevator shafts, pits, dams, mines and reservoirs.

For further information please circle UL-6 on the special postcard enclosed in this issue.

**UL-7** . . . The three main features of Sure-Foot non-slip abrasive paint —application, adaptability and economy—are discussed in detail in the new bulletin recently released by the Frost Paint and Oil Corp. Additional features such as coverage and typical installations in which Sure-Foot may be used satisfactorily to control dangerous slipping problems inside and outside plants and buildings are also included.

For further information please circle UL-7 on the special postcard enclosed in each issue.

**UL 8** . . . A new manual has been issued by Magnuson Products Corporation on PERMAG No. 168, a multi-purpose cleaning compound for all industrial maintenance cleaning operations. Non-toxic, non-inflammable, non-corrosive, non-abrasive and economical, this cleaning compound is said by the manufacturer to be ideal for light to very heavy cleaning jobs. Manual gives specific instructions for over forty cleaning operations, including cooling systems, motors, steam cleaning, interior surfaces, oil tanks, bilges, flooring, lavatories, machinery, etc.

**UL 9** . . . The new 1949 American Industrial Safety Equipment Catalog gives the latest information about eye protection as developed by the American Industrial Safety Equipment Co. Included is the full line of "Champion" goggles, helmets, face shields, respirators, lenses, gloves and other EyeGard items said by the manufacturer to be available at "real savings."

**UL 10** . . . Feedrail Corporation announces publication of a 32-page two-color catalog (No. 20) describing the modern electrical distribution system for portable tools, cranes, hoists, machine tools, cutting tables and sewing machines. The Feedrail system is time tested, approved by the Underwriters' Laboratories Inc. and the Canadian Standards Association. Because of safety features and increase of production, these systems are widely endorsed by safety men, manufacturers of portable tools, hoists, etc., mechanical, electrical and industrial engineers.

**UL 11** . . . Bulletin 114-D, published by The Spencer Turbine Company describes their well known line of commercial portable vacuum cleaners. Spencer Turbine specialize also in Stationary Vacuum Cleaning Systems and Industrial Portable Vacuum cleaners. Special attachments make possible the cleaning of every nook and cranny of your plant.

# TECHNICAL FILE ON TOXIC GASES AND VAPORS

SAVE THIS VALUABLE REFERENCE MATERIAL: BUILD UP A PERMANENT OFFICE FILE

**D 99. TREATMENT.** If coughing persists, oxygen should be given at once and continuously, and a doctor should be in attendance. Artificial respiration is needed only if breathing has stopped. Nitrous fumes degenerate the tissues forming the air sacs of the lungs, a process which takes place slowly and accounts for the delayed effects. Upon any exertion the air sacs may be ruptured, even thirty-six hours after exposure, and body fluids thus may be permitted to enter the lungs, drowning the victim.

**D 100. CHRONIC CASES.** Chronic poisoning from small exposures over long periods includes such signs and symptoms as inflammation or ulceration of the nose and mouth, a wearing down and decaying of the teeth, chronic bronchitis, lung disorders, low blood pressure, high red cell count, and digestive disturbances. Removal from the hazard is essential, if periodic examinations reveal any of these signs. Treatment is according to symptoms.

**D 101. PREVENTION.** As should be expected, the best prevention of nitrous fume poisoning comes in the control of the exposure and education of the worker. In all exposed processes local exhaust ventilation should remove the fumes at the point of origin. Air samples of the work room air should be analyzed periodically to prevent any concentration above the recommended (U. S. Department of Labor) safe limit for nitrogen dioxide of 10 parts per million parts of air for the work period.

**D 102. OZONE.** Ozone is an unstable, colorless combination of oxygen atoms caused by passing an electric spark through the air. It readily reverts to oxygen and, in so doing, gives off an atom of oxygen which is used in industry as an oxidizing agent, a deodorizer, and a mild bleaching agent.

**D 103. INDUSTRIAL EXPOSURES.** Workers who may be exposed to ozone are bleachers, disinfectant makers, electrical workers, fat renderers, laundry workers, ozonators, patent-leather makers, refrigerating plant workers, varnish makers, water purifiers, wax refiners and welders. Ozone may be present in the gases from carbon arcs.

Machines have been built to produce ozone for industrial uses, but workers around such exposures frequently complain of irritation of the eyes and respiratory tract. It is usually considered probable that if ozone, which has an intense, piercing odor, is not detected by the nose, the concentration is not sufficient to cause any injury.

**D 104. PREVENTION.** Adequate ventilation is the best remedy for suspected chronic ozone poisoning. Instances of acute poisoning have been recorded with signs characteristic of this group of gases—that is, cough, headache, lung disorders, depression and unconsciousness. First aid methods follow the uual procedures of removal to outside air, treatment by a physician according to symptom and rest. Prevention hinges upon control of the source of the gas, adequate ventilation, and care to keep work room concentrations below a suggested (U. S. Public Health Service) safe limit of 0.8 parts per million during the work period.

**D 105. PHOSGENE.** Phosgene (also called carbonyl chloride, carbon oxychloride) is a colorless, destructive gas that may be formed wherever carbon monoxide and carbon tetrachloride, or other chlorinated hydrocarbons, combine in the presence of heat. The gas is heavier than air, having a relative density of gas to air of 3.4.

**D 106. EXPOSURES.** Because carbon tetrachloride is used as a fire extinguisher, when it is employed in a closed space such as a room, mine or ship compartment, a phosgene hazard may result. Other phosgene exposures can occur in the manufacture of carbon tetrachloride, methyl violet and similar dye stuffs, or when phosgene is used as a bleaching or chlorinating agent. The gas has been popular in chemical warfare. Workers exposed to this hazard include city and plant firemen, as well as those in the vicinity of plant fire-fighting.

# TECHNICAL FILE ON TOXIC GASES AND VAPORS

**D 107. ACTION ON BODY.** Phosgene is quite insoluble in water, so that it usually gets down into the lungs, just as the nitrous fumes do, before it finally reacts to moisture. At that point it breaks down into hydrochloric acid and carbon dioxide within the water vapor of the terminal air sacs and the smaller bronichioles. Thus, the exposed worker finds there is no irritating warning of the gas in his nose and throat before destruction of the lung tissues begins. Headache, coughing, shortness of breath and painful breathing are apparent before the eyes, skin and other membranes begin to show irritation in acute poisoning cases.

**D 108. TREATMENT.** The situation is similar to that of the nitrous fume hazard, except that the gas is colorless and cannot be detected easily. Rescue and treatment follow the procedures cited for the nitrogen oxides, as in the case of phosgene also the delayed reaction can cause the victim to drown in his own body fluids. The preceding irritation to, or destruction of, the lung tissues can be accompanied by a heart disorder. When a victim recovers, this heart trouble usually clears up, but he may be subject to a chronic bronchitis or other lung affection for years. The U. S. Public Health Service has suggested a safe limit of 1 part of the gas per million parts of air for a work period.

**D 109. CONTROL.** Control of the poisoning depends upon keeping the work room air within that limit and keeping workmen informed of the dangers of the hazard. First aid squads should be trained in quick action on workers who have been overcome.

**D 110. PHOSPHOROUS TRICHLORIDE.** Phosphorous trichloride (also called phosphorous chloride) is a colorless, fuming liquid, whose vapors are slightly heavier than air and liberate hydrochloric and phosphorous acids. Thus, because its action of decomposition is more rapid than that of phosgene, it tends to irritate the upper respiratory tract first in warning of exposure, as does hydrochloric acid itself, before it imitates the deeper destruction of phosgene on the lungs. The characteristic garlic odor of phosphorous may also serve as a warning for the workers to seek fresh air.

**D 111. INDUSTRIAL EXPOSURES.** Phosphorous trichloride is used in industry as a chlorinating agent, as a solvent for phosphorous, and is used in the manufacture of saccharin. It may be present as a hazard in certain metallic deposits (see phosphorous list for representative exposed occupations).

**D 112. PREVENTION AND TREATMENT.** Rescue and prevention in exposures to this gas follow procedures outlined for phosgene.

The question of fatalities is a minor one, since the detection of the exposure is made easier by the early irritations to eyes and membranes. Few records of safe work room concentrations are available for this hazard, but a safe limit has been suggested (Utah) as 0.7 parts per million of air for the work period.

**D 113. ARSENIC TRICHLORIDE.** Arsenic trichloride (also known as butter of arsenic, caustic oil of arsenic, and arsenic chloride) is a colorless, oily liquid whose vapors are heavier than air and are somewhat soluble in water. The liquid is produced by the action of chlorine on arsenic, or by the distillation of arsenic with mercuric chloride, or by distilling arsenious oxide with strong hydrochloric acid, or by heating dry arsenious oxide with sulphur chloride between 100 and 125 degrees Centigrade.

**D 114. INDUSTRIAL USES.** The trichloride is used to produce luster finishes in ceramics, in the drug industry and as a catalyst in the manufacture of carbon tetrachloride (see *Arsenic* for exposed occupations).

**D 115. EFFECTS OF EXPOSURE.** Its effect on the exposed worker is similar to that of phosphorous trichloride in that it gives ample warning irritations of the skin, eyes and mucous membranes before it gets to deeper tissues. A garlic odor also may be detected. Its local irritations may be even more intense than those of the phosphorous gas, and prolonged minor exposures have been known to cause itching and ulcerations of the skin, sweating of the palms and soles and such typical arsenic reactions as loss of hair, halitosis, etc.

**D 116. TREATMENT AND CONTROL.** All treatment usually is symptomatic after removal from the exposure. Protective apparatus for the exposed skin is important in this hazard. Other controls are similar to those of phosgene. One part per million has been suggested (McNally) as a safe limit for this gas and the work room should be ventilated and processes exhausted to keep under that concentration.

*(To be continued)*

## COOLING CRANE CABS

From Page 19

Air surrounding the crane is 140°, but within the cab it is held automatically and continuously at 80°.

Since the first installation, Jones & Laughlin has also installed coolers for two other ladle cranes, three soaking pit cranes and a converter crane. These units are also equipped with strip heaters for warming the cabs in winter.

When extremely high temperatures exist in the crane working zone it has been found advisable to insulate the cab. A typical installation of this type is at Ford's River Rouge plant where cranes handle red hot ingots.

The cab is specially designed and built to afford good insulation as well as full vision for the operator. All four sides of the cab are shielded with two pieces of surface hardened plate glass set one-half inch apart. The outer glass also is heat absorbing. This construction represents a reduction of approximately 37% of the normal amount of heat transmitted by conduction through the glass area, exclusive of the radiant energy of the hot steel being handled. The effectiveness of the glass insulation increases as the temperature of the operation increases. The floor and roof of the cab incorporate hollow compartments packed with fibre glass for insulation. This construction of the cab permits a temperature of 85F to be maintained during the cooling season when subjected to 135F ambient temperature, and 70F during the heating season when the outside temperature is OF.

At Jones & Laughlin, the cab roof and walls are insulated with three inches, and the floor with three and one-half inches of fibre glass. In addition, a steel heat shield is suspended six inches beneath the floor of the cab. The complete-self-contained Dravo cooling unit is seven feet long, two and one-half feet wide and four feet high. It is mounted directly on top of the cab, and no duct work is necessary.

Where working zone temperatures no higher than 125 degrees exist, the cab need not be insulated because the unit has sufficient cooling capacity.

The crane cab cooler uses Freon 114 as a refrigerant instead of Freon 12 that usually is employed in air conditioning systems. Freon 114 has a considerably higher boiling point than the other and permits a lower operating pressure under the extreme conditions of high ambient temperatures.

Not only is the air that enters the cab filtered twice, but twice-filtered air also is used to ventilate the motors. Dust-free ventilating air for the motor reduces wear on brushes and moving surfaces. The cooler circulates 400 cfm of air through the cab. Three-fourths of this is recirculated, while the balance is make-up air brought into the unit through two filters and activated carbon cannisters for removing fumes.

The air diffuser installed in the top of the cab was carefully selected so it not only would give a diffusing effect immediately around the operator, but also would move the air along the inside surfaces of the cab to reduce the radiant effect generated by the high temperatures outside.

Many branches of the steel industry could use a crane cab cooler, of this type. Besides ladle, convertor, stripper and soaking pit cranes, many crane cabs in rolling and slab mills, and plants having blast and open hearth furnaces are exposed to heat that cause unnecessary discomforts to the operator. Because of the toxic fumes found in many alloy steel plants, such as those producing manganese, chrome, silicon and beryllium alloys, the fume removal feature would be particularly advantageous.

Available both as a floor-mounted type (shown) or an overhead installation. Complete with a motor-driven sludge removal conveyor, where required.

AUTOMATIC ELIMINATION
from Collection to Disposal

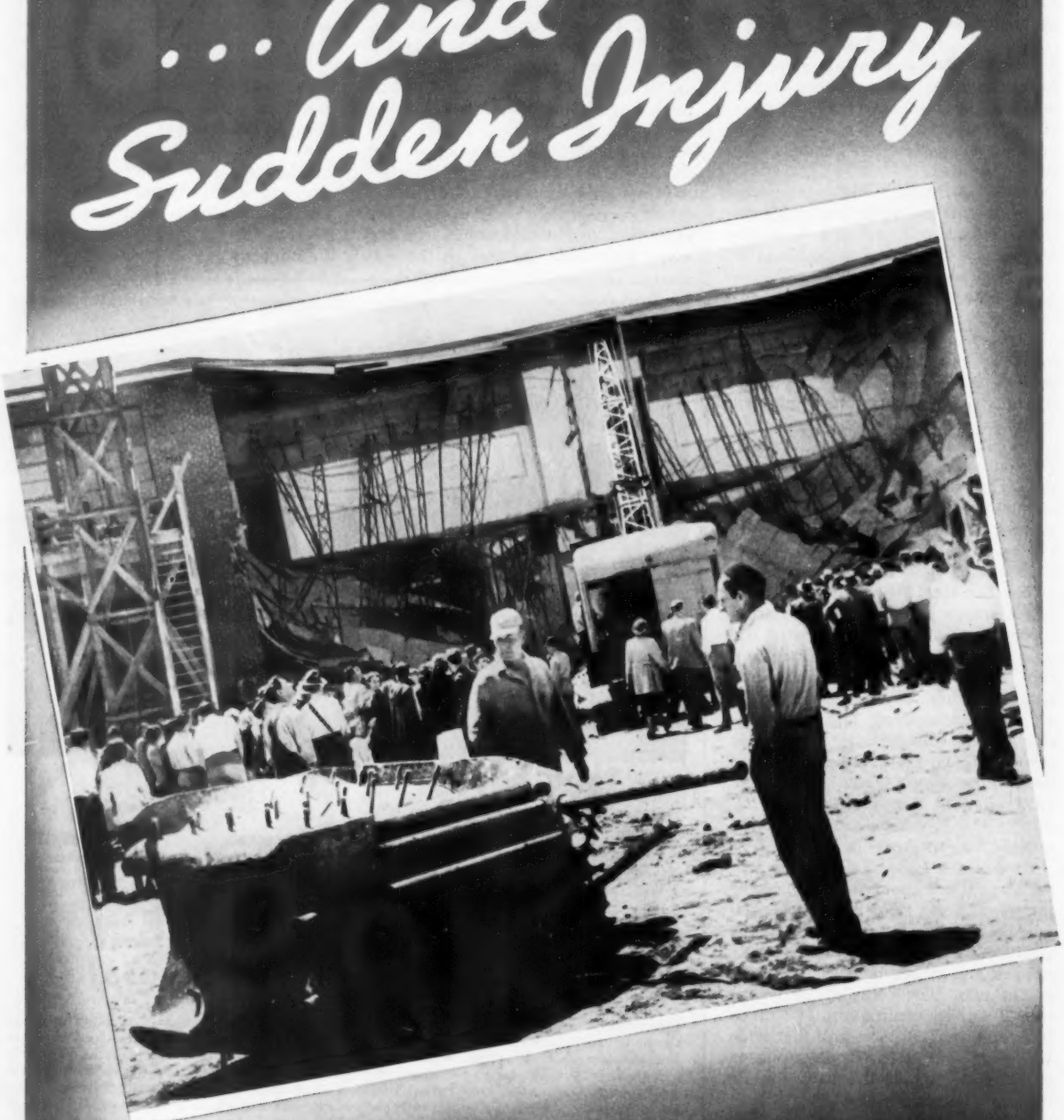
Operators of modern plants have long since learned the economy of ridding their shops of destructive dust and smoke fumes. Men who work in plants free of these health hazards feel better, work better, produce more. And the accident rate is lowered. In actual plant operation, the Schmieg CENTRI-MERGE method of dust and fume elimination has shown marked advantages over any other system. Dust and fumes are collected *immediately they occur*—shot back on a stream of air through ducts to the Collection Unit. In the washing chamber of this unit—a veritable tornado of seething, churning water-dust is washed and scrubbed from the air and flooded into the sludge tank below, permanently trapped under water. Fumes go out the exhaust. AUTOMATIC operation from start to finish.

THE best AIR PURGE is CENTRI MERGE

*Our engineers will be pleased to consult with you in the solution of your problem*

Schmieg INDUSTRIES INC.
*Engineers & Manufacturers*
303 PIQUETTE AVENUE • DETROIT 2, MICHIGAN

# . . . And Sudden Injury



**Workmen begin rescue operations after a boiler exploded, ripping apart a new building. A section of the boiler lies in the foreground. Two workmen were killed instantly and a third man seriously injured.** *(Acme Photo)*

## And Sudden Injury

The explosion hazard is the number one hazard in any Boiler Room. As can be seen in the picture to the left, such explosions are capable of doing extensive property damage and nearly always result in death or serious injury in personnel.

The Accident Prevention Department of the Association of Casualty and Surety Executives have pointed out in their handbook of industrial safety standards that the majority of boiler explosions can be traced to defective equipment or by inefficiency in maintenance and operation.

Design, construction, and installation of new steam boilers and their appurtenances and repair or alteration of existing boilers should be in strict compliance with the requirements of the latest edition of the American Society of Mechanical Engineers Boiler Construction Code. Where State laws or local ordinances exist strict compliance therewith is necessary.

Every boiler should be stamped in accordance with the requirements of the state where it is to be installed.

Before putting a steam boiler in operation safety valves should be checked. One of the vent valves should be opened to permit the escape of air. The intake, or feed valve, should be opened until the water level is at the point normal under steaming conditions. All intake valves on the boiler should be tested to make certain they are tight. All burners must be watched carefully to see that all fuel being delivered to them is actually being burned in order to avoid the accumulation of unburned gases which might cause an explosion. If a burner should "snap out," the fuel supply should be turned off at once and the furnace and all gas passages should be well ventilated before the furnace is put back into use. For valves operating at or above 350 pounds, the manufacturer's instructions should be followed as to testing cold or under pressure.


Chief "HOT FOOT" say:

"Scar'm Evil Fire Spirit Away!"

Beat the heat with WHEELER! For hot jobs, wear WHEELER Helmets made from Underwriter's Grade Asbestos which is carefully fitted and attached over wire head frames, fibre head frames, or hard boiled hat frames. You'll like the adjustable, padded head bands; the full front, undistorted vision piece with heat-resistant, pyrex polished plate glass lenses; the many ways of ventilating we use; and the unlimited selection of styles we have, whether it be for sandblasting, dust, or heat. Ask for our new Catalog G98; pick out the style you like, or let us design one for you, that's our specialty. Don't be a hot head! Wear a WHEELER Helmet instead!

PROTECTIVE WHEELER APPAREL

224 W. Huron St., Chicago 10, Ill.


## Milk Wagon Fire Cooks up a Sale

**The Pyrene Manufacturing Company, Newark, N. J., world's largest producer of fire extinguishers, has hit upon a new sales technique which would be fool-proof but for one thing—**

**Prospective customers seldom bring their fires to the Pyrene factory.**

**But one did recently, the Clinton Milk Company, also of Newark.**

**Flames broke out in one of the Clinton trucks—right out in front of the Pyrene plant on Newark's Meeker avenue.**

**Frantically, like a mother trying to feed quintuplets all at once, the driver vainly poured bottles of milk on the blaze.**

**Out of the Pyrene plant, a company employee armed with an extinguisher dashed to the rescue. In a matter of seconds the fire was snuffed out under a blanket of vaporizing liquid from the extinguisher.**

**That sold the Clinton Milk Company.**

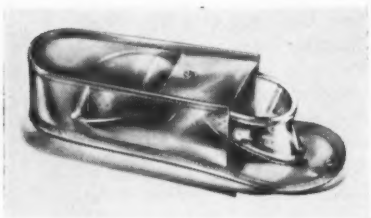
**An official of the milk company stated that he was instructing all of his drivers that hereafter they should have their fires in front of a Pyrene building. But just in case—he equipped every last truck and the company garages with extinguishers—Pyrenes.**

# New PRODUCTS

**USE THE POSTCARD BOUND IN THIS ISSUE FOR MORE INFORMATION OF NEW PRODUCTS FEATURED HERE**

**NP-1 . . . GOGGLE CASE** — The American Optical Co. have designed a new, pouch-type transparent case to protect worker's goggles from scratches, dust and dirt when not in use. This lightweight case is made of clear Vinyl, a plastic-like chemical-resistant material, approved under the Standard Case Material Acceptance Test. It is soft and flexible.

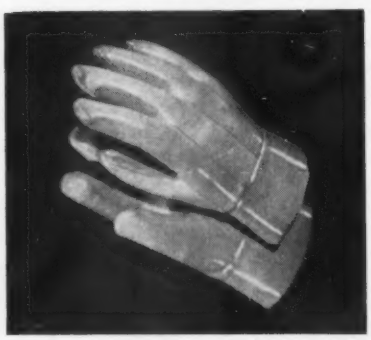
Will not crack, harden, or dry out. It can be folded and tucked away in



a worker's pocket or small space. An extra fold permits the top flap of the case to be snapped closed with no pressure being put on the goggles inside.

For further information please circle NP-1 on the special postcard enclosed in this issue.

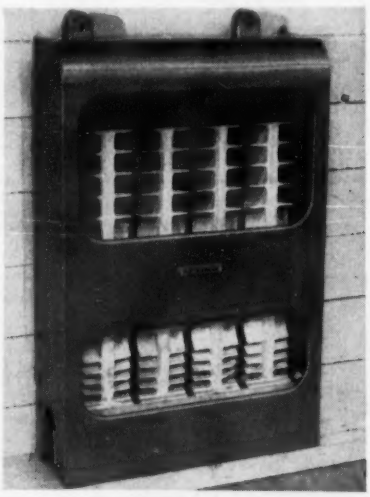
**NP-2 . . . COATED FABRIC GLOVES** —Development of a new coated fabric work glove that outdoes rubber and all standard synthetic coated gloves, both in resistance to chemicals and resistance to abrasion, is



announced by the Surety Rubber Company. According to the manufacturer, the difference between Surety's new glove and coated fabric gloves now on the market lies in the coating, which is a chemical adaptation of Surety's Sureseal synthetic rubber, and which was developed after hundreds of compounds had been made and tested in the Surety laboratories. The new coating is said to resist virtually all industrial chemicals, including acids, alkalis, oils, petroleum hydrocarbons and solvents, alcohols, ethers, esters, hydraulic fluids, refrigerants, plating solutions, and a host of others.

For further information please circle NP-2 on the special postcard enclosed in this issue.

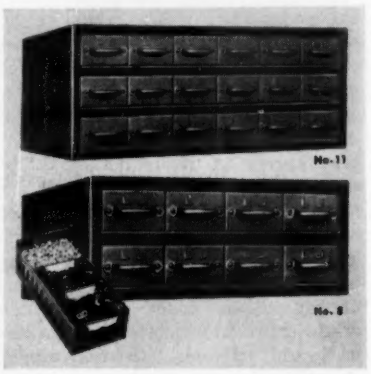
**NP-3 . . . EXPLOSION PROOF ELECTRIC HEATER** — Heating hazardous locations safely, efficiently and at reasonable costs has been solved by the newly developed Electromode All-Electric Explosion-Proof heater,



according to the manufacturer, Electromode Corporation. Approved by Underwriters' Laboratories, Inc. Installation is simple as the heater is mounted to a wall and service is run to a connecting box on the outside of the heater. Recommended for such hazardous locations as pipeline offices, pump stations, valve houses, meter houses, bulk gasoline stations, refinery buildings and similar locations in the petroleum industry. Finished in silver-grey hammertone.

For further information please circle NP-3 on the special postcard enclosed in this issue.

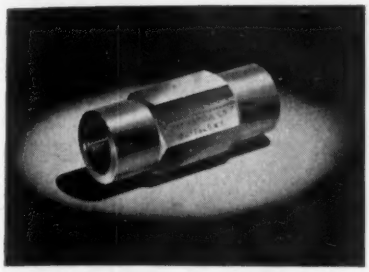
**NP-4 . . . STEEL DRAWER CABINET** — Equipto, Division of Aurora Equipment Co. have announced the manufacture of low-priced steel drawer cabinets designed especially for nuts, bolts, washers, screws, nails and innumerable other small pieces. These cabinets fit readily on or under counters, work benches, mailing tables, desks, files, etc.




For further information please circle NP-4 on the special postcard enclosed in this issue.

**NP-5 . . . SHUTOFF VALVE** — An automatic Safety Shutoff Valve for use on compressed air lines is being manufactured by the Olin Gas Engine Co. Made to fit standard connections, it is inserted at the intake end of the air hose. When a break occurs in the hose the valve closes instantly and shuts off the pressure, permitting only a light stream of air to escape through a by-pass. This eliminates the danger of accidents caused by breaking lines and avoids the necessity of turning off a valve

to make repairs. When the hose is repaired the pressure will equalize and the valve open automatically. It also permits the changing of tools without shutting off a valve at the air line.



For further information please circle NP-5 on the special postcard enclosed in this issue.

**NP-6 . . . SHOE SOLES**—The Gro-Cord Company announces a new cord-on-end shoe sole. During World War II the cord-on-end type of sole was discontinued due to lack of pure rubber. That situation no longer exists. The new cord-on-end sole, with new design and matching heel, has been named "Gro-Cord." The fine performance of this sole has

been proven and its non-slip and waterproof qualities recognized by leading industrial users.

For further information, please circle NP-6 on the special postcard enclosed in this issue.

**NP-7 . . . CIRCUIT BREAKER**—A new attachment plug that doubles as a circuit breaker has just been announced by Hopax Electric. The device is designed to guard against dangerous overloading, stalling or rotor rocking on any machine employing a fractional horsepower motor. The Hopax Plug, it is claimed, affords protection not possible with ordinary circuit fusing. The plug operates only when conditions become dangerous for the particular appliance on which it is installed. Other devices on the same circuit can thus continue to function.

For further information please circle NP-7 on the special postcard enclosed in this issue.

**NP-8 . . . PORTABLE ELEVATOR**—The new "Hundred" line of Barrett hand-operated portable elevators are designed to handle 500, 1000 and 2000 pounds. The Barrett-Cravens Co. state that these three general purpose elevators have been designed and engineered for safe, fast, economical loading and stacking. Their maneuverability makes them well suited for such additional purposes as die handling, servicing balconies, overhead repairs and motor truck loading.

For further information please circle NP-8 on the special postcard enclosed in this issue.

**NP-9 . . . HIGHWAY FLARE** — "Karflare," a safe, inexpensive, compact signal flare for use on the highway has been announced by The Holden Co., Inc. This device is a non-explosive, solidified petroleum product that will not deteriorate. Each flare is packed in a small metal container and is easily ignited with a match or cigarette lighter. It burns for over an hour with an intense

yellow light, visible for ¼ mile. Wind, rain or snow cannot extinguish "Karflare." However, it can be quickly put out by merely replacing the cover, making it possible to use over and over again. Each unit contains three flares, neatly packed in a compact metal container. It can be carried in the glove compartment without danger.

For further information please circle NP-9 on the special postcard enclosed in this issue.

**NP-10 . . . INDUSTRIAL GLOVE**—The Pioneer Rubber Co. announces production of a new Stanzoil—Industrial Glove—the NL-52 Heavy Duplex. This glove is specifically designed to fill industry's demands for a heavy weight, extra large size, extra length industrial glove with

an elastic knit lining. The fingers are straight and coated with the famous Pioneer non-slip finish.

For further information please circle NP-10 on the special postcard enclosed in this issue.

**NP-11 . . . INSECTICIDE SPRAYER**—The new West Mistorizer is now available throughout the United States. Designed to provide efficient insect control where you want it—when you want it, the new West

**AVOID HAZARDS FROM FALLING FLUORESCENT LAMPS**

A cut from the broken glass may result in BERYLLIUM POISONING

**FLUR-O-LOCKS is the answer to this problem**

**FLUR-O-LOCKS** also tend to lamp, starter and ballast efficiency

**MILLIONS NOW IN SERVICE**

Ask your Electrical Jobber or write us direct for further information.

Flur-o-Locks by

LADUBY COMPANY

NORTH HAVEN, CONNECTICUT

# FOR SAFETY PLUS

For *better* rubberized Work Gloves, look for the HOOD Trade Mark—a sign of quality since 1896. Styles to suit every requirement. Send for folder. Order from your jobber.

HOOD RUBBER CO., WATERTOWN, MASS.
A Division of the B. F. Goodrich Company


Mistorizer automatically sprays West insecticides faster, farther and with less effort than previous models, according to the manufacturer, the West Disinfecting Co. This unit can operate on AC or DC. It requires no filters, oiling or greasing. Patented airflow system cools motor. Completely leak-proof. Unit

runs wet or dry. Ball bearings hermetically sealed. Instantaneous and continuous full pressure spraying.

For further information, please circle NP-11 on the special postcard enclosed in this issue.

**NP-12 . . . DRY CHEMICAL EXTINGUISHER**—A new dry chemical extinguisher incorporating what are believed to be three outstanding improvements over models now on the market is announced by The General Detroit Corp. Improvements claimed by the manufacturer for this new addition to the General Quick Aid line are first, more efficient expulsion of the extinguishing

agent; second, light weight; third, unusual compactness. A small carbon dioxide cylinder furnishes the impelling force that delivers the powder in a stream as long as 25 feet to the fire.

For further information, please circle NP-12 on the special postcard enclosed in this issue.

**NP-13 . . . COLOR COMPASS**—Developed to assist management and maintenance executives in specifying the correct restful, serviceable color combinations for specific areas according to their particular lighting characteristics and occupancy, a color compass is now available to industrial firms and institutions from The ARCO Co., paint manufacturers. The device puts color

planning on a scientific basis by the pre-selection of preferred and alternate color schemes, based on the exposure and installed lighting in the particular room and the use for which the area is intended.

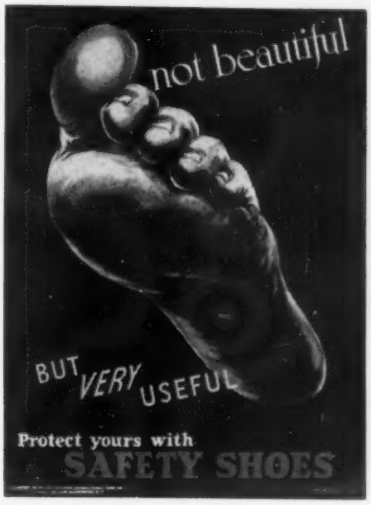
For further information, please circle NP-13 on the special postcard enclosed in this issue.

**NP-14 . . . SAFETY WRENCH**—The Trimont Mfg. Co. are now manufacturing the Trimont ROXCO Wrench, especially designed for safety. The company has complete facilities for testing, including the cantilever test. Tests were made over a period of several months which resulted in a gradual lightening of the handle along with a heavier reinforcing section just below the jaw which overcame any sign of weakness under stress. The ROXCO Wrench exceeds Federal specifications for heavy duty wrenches in this class and size. The user of a ROXCO Wrench will find the grip and release action highly satisfactory.

For further information, please circle NP-14 on the special postcard enclosed in this issue.

## BRITISH ARTIST GIVES NEW "TWIST" TO SAFETY SHOE

THIS year's series of safety posters published by the Hy-Test Safety Shoe Division of International Shoe Company uses a new style in stressing the value of safety shoes to workers. They are particularly outstanding for the composition and technique used.




The series is the work of English artist, F. Kenwood Giles, who is new to American commercial art circles but well-known in Britain and the dominions. His work was seen daily during the war by the workers of Britain where he was commissioned by The Royal Society for the Prevention of Accidents to design posters in their campaign to stop accidents in war factories. The black and white dogs of Buchanan's Whiskey are his work.

With this talent available, the Hy-Test Division comissioned Giles to do their Safety Shoe posters this year. The series emphasizes simple, yet dramatic handling of each subject and conveys the message in a manner somewhat new to American workers. The posters forcefully point out the need for the use of Safety Shoes. They re-create and teach lessons in a quick impressive way. They dramatize safety ideas in a few short words. One of them shown here illustrates the new "twist" as applied by Giles. The entire series is available to Safety Directors.


**IN ANY OF THESE CHEMICALS**

**acids** (mineral and organic), alkalis, chlorinated solvents containing hydrogen . . .

**oils,** greases, fats, gasoline, aromatics, nitroparaffins, and other hydrocarbon compounds . . .

**alcohols,** ethers, esters, heavier ketones, carbon tetrachloride . . .

**hydraulic fluids,** paint dryers, pickling baths, photographic solutions, plating solutions, printing inks, refrigerants . . .

Jumbo size, curved fingers-knit wrist, band top, gauntlet, and ventilated back types available.

**SURESEAL PK COATED GLOVES**

**MOST HAND PROTECTION • LOWEST COST**
**LONGEST WEAR**

For details on this **NEW DEVELOPMENT** in coated fabric work gloves write to:

THE SURETY RUBBER CO. CARROLLTON, OHIO

*"Your Guide to Safety in Steel Erection Work"*

*"Your Guide to Safety in Mercantile Establishments"*

*"Your Guide to Safety when Blasting"*

*"Your Guide to Safety in the Plumbing, Heating and Ventilating Trades"*

*"Your Guide to the Safe Care and Use of Fiber Ropes"*

*"Your Guide to Safety when disposing of Fluorescent and Mercury Vapor Lamps"*

*"Your Guide to Safety in Welding and Cutting Operations"*

*"Your Guide to Safety in Woodworking Shops"*

Recently a new series was developed as the result of the wide use of liquefied petroleum gases for fuel. There were certain misunderstandings concerning these gases, as well as in many cases, a dire lack of any information. A collection of eight pamphlets written originally for the member field engineering staffs, but distributed much more liberally to the public, have answered many of the questions that had arisen prior to their publication. The complete series is as follows:

*"Liquefied Petroleum Gas—What It Is—How It Acts"*

*"Safe Operation of Motor Vehicles Transporting L.P. Gas"*

*"Safe Motor Vehicles and Equipment for Transporting L.P. Gas"*

*"Safe Use of Liquefied Petroleum Gas as Fuel for Automotive Vehicles"*

*"Safe Design and Operation of Central Plants for L.P. Gas Utility Service"*

*"Safe Use of Liquefied Petroleum Gas in Industry"*

*"Safe Use of Liquefied Petroleum Gas in Domestic Installations"*

*"Safe Storage, Transfer and Distribution of Liquefied Petroleum Gas"*

## Handbook of Industrial Safety Standards

Another book of valuable service to the practicing safety engineer has been the "Handbook of Industrial Safety Standards." This publication has a history of more than a quarter of a century. It is revised from time to time to include the new safety standards as they are developed, and presents a digest of the standards in handy form for the engineer to use.

Because in industry, the success of a safety program is a direct function of the interest, ability and knowledge of the industrial supervisors, a new publication has recently been issued entitled *"The Supervisor's Safety Guidebook"*. It is not a collection of do's and don'ts or statistical data. It is a conversationally written pamphlet, intended to assist in the development of the supervisor's thinking concerning his responsibility for promoting safety.

## Special Hazards Committee

In spite of the real values associated with this material, the Association was not entirely satisfied that its objectives of preventing accidents were being fully met.

An unusual group within the Division known as the Special Hazards Engineering Research Committee has been formed. It is composed of outstanding engineers from certain of the members of the Association, and it functions to critically review new materials and processes in order to evaluate their potential hazard.

SAFETY EQUIPMENT FOR ALL INDUSTRIES

AVOID LADDER SLIPPING ACCIDENTS

•

UNIVERSAL LADDER SHOES

Meets the requirements for use on all types of floors and surfaces. Provides real ladder security. Approved by the Underwriter's Laboratories. Adopted by many companies for general service.

RUBBER TREAD for Dry Surfaces.
CORD grips wet surfaces.
RIDGES secure firm grip on gravel, etc.
SHARP SPIKE for ice and snow.
All features combined in one ladder shoe.

Write For Bulletin No. M-79A

IPCO
Safety Equipment for all Industries
INDUSTRIAL PRODUCTS COMPANY
2830 N. FOURTH STREET • PHILADELPHIA 33, PA.

Save fingers! Littell

AIR-BLAST VALVES

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REQUEST BULLETIN

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The Committee reviews a relatively large number of different types of materials, machines, and processes referred to it. Special Hazards Engineering Bulletins are then sent to the members so that they in turn may inform the public. Sometimes, the Committee finds that one of the subjects which has come up for consideration is not truly a hazardous article. The members then are informed of this reassuring knowledge. Here too, the objective of the reports in this series will be to examine each product for its hazardousness, not in terms necessarily of the dangers associated with it in the past, but from the point of view, "What are the hazards that can cause accidents, which may not have occurred as yet?"

More and more as we review accident prevention procedures, we are forming the opinion that the only truly practical way to accomplish the reduction of accidents is through correct engineering. Anyone who has had experience with trying to promote safety, learned very quickly that in spite of all the education, all the common sense appeals, all the salesmanship, and showmanship, that can be generated to create interest on the part of personnel in accident prevention, people still do incorrect things that result in accidents.

### Engineered Safety

One of the most important answers to the accident prevention problem therefore, lies in engineering—the establishment of a physical environment which to all practical and common sense purposes, will not permit the worker to injure himself. It is recognized that it would be an impossibility to improve physical conditions to the point where people will not be injured, regardless of what they do. But it must be remembered that the accident preventionist's practical goal is not the elimination of accidents, but the reduction of them to the irreducible minimum. Such an aim would make the rule of engineering improvement first, a practical reality. In pursuing such a philosophy, it would not be intended to neglect the advantages of educating for safety. This function, however, should be a supplementary, rather than the predominating one as it is in many cases now.

The Industrial Division of the Association of Casualty and Surety Companies' Accident Prevention Department tries energetically to live up to these ideals and aims. It is motivated by the rich history in the field of accident prevention enjoyed by its member companies—the stock casualty insurance carriers. It is inspired by the noble efforts of these carriers in their promotion of safety. Its work is carried out with a spirit and energy nourished by the thought of the good it can do in reducing an accident toll which still is too high.

**SKULL & CROSSBONES FOR SAFETY**
**From Page 15**

gation and to suggestions for safety submitted by employees. No idea ever drops by the wayside before it is fully and fairly discussed, and, further, no idea is completely disposed of until the person who supplied it is notified of action taken and reasons therefor.

On the matter of accident investigation, Midwest has a ruling that each foreman concerned must investigate thoroughly every accident that required a doctor's attention and every injury to an eye, regardless of whether it is a lost-time acci-

## ANOTHER PAIR OF EYES SAVED

**A "wise owl" because he wore his safety glasses while on the job and thus saved himself from blindness, Norman Bruckner, 30, recently became the first member of the Blatz Brewing Company's new chapter of the Wise Owl Club of America.**

**Sponsored by the National Society for the Prevention of Blindness, the Wise Owl organization** *(see O.H. Editorial, December, 1948)* **was founded at the American Car and Foundry Company's St. Louis plant in April, 1947. Its members are the men and women of industrial plants across the country who have had one or both eyes saved by wearing protective devices at the time of an accident.**

**Bruckner, who is the father of three small children, recently was splashed about the face and arms with a solution of caustic soda he was using in normal cleaning operations. Although he suffered minor burns of the hands and arms which required medical attention, Dr. Joseph Devitt, the company medical director, told Blatz officials Bruckner's eyes had escaped injury solely because he had been wearing safety glasses. In all probability, said the doctor, Bruckner's sight would have been permanently impaired had he not been wearing the protective glasses. He is the first person in Wisconsin to be appointed to membership in the club.**

**Safety glasses were introduced at Blatz more than three years ago as a part of a plant safety program. Charter for the new Wise Owl club chapter was arranged by Gregg R. Meyers, safety director of the Blatz firm.**


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dent. These investigations are conducted with detective-like precision. Equal emphasis is placed on what went on to cause the accident and what can be done to prevent a recurrence. Net result is a continuing education in safety for the foreman and a positive recommendation for the committee in every case.

On the "keeping 'em reminded" side of Midwest's safety program, a visitor has only to step inside the plant to grasp the full import of a drive that never lets the thought of safety die. There are painted signs, neon signs, bulletins, pictures and slogans on safety in every strategic spot. And, for the most part, they're always original and personalized to gain the maximum interest.

### Monthly Safety Slogan

Each month a new safety slogan appears. It's original and its selection is ceremonial. Employees deposit an average of 4 slogans a month in the slogan box. A committee selects the best and it is painted in box-car letters on huge signboards—with the originator's name boldly added in a credit line beneath. For his winning slogan, the employee receives a $5 award. His picture is taken with a foreman or executive making the presentation, and a copy of that picture goes to him while others are posted in the plant to keep the competition alive.

Arrangements are being made now to print the monthly slogan on each employee's clock card.

Exhibits play their part in safety education at Midwest. At present, Thelhorst is rounding up a collection of glass eyes. He'll display them with a number of shattered goggles that already proved their worth. A catch-line beside the artificial eye will read: "If you'd rather wear these instead of goggles, better pick 'em now while you can still see!"

Simple, though effective, is the reminder handed out to the employee every time he uses a mirror in company washrooms. When he looks into the mirror, he reads: "This Is the Person Responsible for your Safety!"

### Supervisor's Reminder

There's a special reminder system for supervisors, too. Each monthly safety committee meeting is followed by a plant-wide inspection conducted by the committee secretary and two non-committee workmen picked at random. A copy of their report goes to every department supervisor. Thus he is informed, each month from a fresh viewpoint, of safety deficiencies for which he is responsible. That alone does not satisfy the committee. It checks the deficiencies, too, and sends a representative to see what corrective action by the supervisor can be reported at the next committee meeting.

As though this weren't enough to keep supervisors on their toes, another plan has been adopted to point out hazardous conditions in the plant. Each department has a supply of gummed labels imprinted with the skull and crossbones symbol.

### Safety Reaches Home

Each employee has the privilege of condemning a condition or practice as unsafe. He does it by sticking a label on the spot or equipment he so condemns, and writes his name and the date in a space provided. Elsewhere on the label is a space for the responsible foreman to write his name when the condition is corrected.

The stunt, luckily, has been spirited with good nature on the part of foremen and employees alike, and not only has brought about rapid action in every case, but stimulated the interest in safety at Midwest Piping and Supply Company.

However, a real job on safety has to go beyond the plants and must reach, besides the men in the shop, their homes and their families as well.

And that's the goal Midwest is shooting for now. It means getting a step nearer each time workmen and families can be brought together on common ground for a discussion of plant safety, or to celebrate the achievement of a safety record as they did when pipe fabricating welders received their recent award. As the chairman of the Safety Committee put it: "We want the family to know there is such a thing as a safety program going on in the plant."

It's the company's theory that the workman who gets a "be careful" warning with his goodbye in the morning and an "any accidents today?" query with his hello in the evening is the one who will make the plant a safer place to work.


USE POSTCARD BOUND IN THIS ISSUE FOR INFO. ABOUT NEW PRODUCTS!

From Page 17

Sprinkler heads can be installed to meet any required temperature. The dry system is necessary in any unheated building. In this system the sprinkler pipes are filled with air at 25 to 30 lbs. pressure. A release of this air automatically admits water to the pipes through a dry pipe valve located in a heated valve room. The open sprinkler system is useful in protecting the sides of the building, the roof, wire glass windows or steel shutters from adjoining buildings. This system may be non-automatic valve operated or heat actuated.

**Special Automatic Systems:** Carbon dioxide is particularly desirable where the system operates in an enclosure and the value of the contents is high and must be protected against water damage. This system is discharged manually or by means of heat actuated devices. Carbon dioxide is effective on electrical equipment or flammable liquids.

**Automatic Foam Systems:** Fixed foam installations are most effective for tanks and operations involving flammable liquids. This system usually is operated automatically. Foam systems should never be used on electrical fire hazards.

**Water Spray Systems:** This system is used for extinguishing fires involving oil filled electrical equipment such as transformers, oil switches and oil piping. This system is also effective on open tanks of flammable liquids. To be effective, water spray systems require expert installation.

All fire fighting equipment should be maintained in excellent condition at all times. Regular inspections should be made periodically. One or more inspectors, depending on the size of the plant, should be responsible for these inspections. The items to be checked are as follows: Fire extinguishers, hose, nozzles, valves, hydrants, hose houses, fire doors, automatic sprinkler systems and other automatic extinguisher systems.

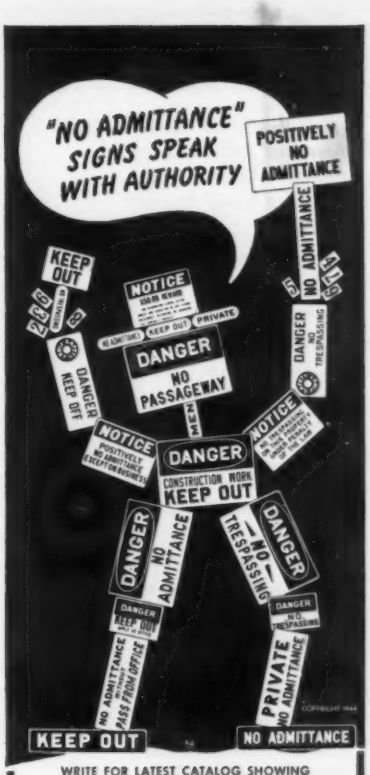
Fire extinguishers should prominently display tags indicating charging and inspection date. All portable equipment can be sealed. This is an easy process and can be of great value on inspections in order to find extinguishers that have been tampered with or discharged and put back without being recharged. Any defective or inoperative equipment should be removed from service immediately. After each inspection a report should be made out on all defective equipment and this report given to the fire chief or personnel in charge of the fire department so immediate action can be taken for repair or replacement. Fire hydrants and sprinkler systems should be tested occasionally. Fire hose should be inspected regularly and pressure tested at least once a year.

It is also important that equipment be painted regularly and kept clean so it can be readily seen and identified.

The tremendous loss of life and property is a challenge to all industry today. *We Can Do Something About It!*

The sincere desire to accomplish these aims will definitely be reflected in the records for 1949 and the future.—This article made possible through courtesy of Mr. Waldron of Packard Electric, and Mr. Fluker of the Ohio Ind. Comm.

**ROUTE ALL FIRE ARTICLES TO YOUR PLANT FIRE CHIEF!**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### LETTERS TO THE EDITOR

From Page 6

the article (Organizing Fire Brigades, p. 22) on how to organize an auxiliary brigade. We have just recently organized such a brigade in our plant, and we received some very valuable information from this article which will help to better our own brigade.

My reason in writing you is that I noticed toward the end of the article that two films entitled "Chemistry of Fire" and "Fire in Industry" were being shown the fire brigades mentioned in the article. I would appreciate any information which you could forward as to where I could secure these films for a showing to our department.—Howard G. Heimke, Ass't Personnel Director, Brillion Iron Works, Inc. Wis.

OCCUPATIONAL HAZARDS:

We are planning to establish a Fire Brigade at our General Storeroom. Your May 1949 issue carries an interesting article on the subject. We feel the Fire Brigade Training and Reference Manual mentioned on page 32 would be a big help to us. Do you know if we can secure a copy of this manual?—R. L. Higbee, General Storekeeper, West Penn Power Company, Connellsville, Pa.

*In reply to the letters of readers Heimke and Higbee and those many others writing for the same kind of information, we suggest you contact Mr. L. E. Shingledecker, Director of Fire Safety of The Mill Mutuals Ohio Dept., 22 East Gay St., Columbus 15, Ohio. Mr. Shingledecker is in charge of organizing fire brigades in companies insured by his company and is taking a very active part in organizing both state and national fire brigade organizations.—Editor.*

## LITERATURE FEATURED IN ADS THIS MONTH

**(Circle on enclosed postcard numbers of manufacturers literature you wish to receive)**

**A-1. Kirk & Blum Mfg. Co.** "Dust Controlling Systems in Metal Industries."

**A-2. Finnell System, Inc.** Floor Maintenance.

**A-3. Hy-Test Div. International Shoe Co.** Getting workers to wear safety shoes.

**A-4. West Disinfecting Co.** About the new Lan-O-Kleen Hand Cleanser.

**A-5. Stonehouse Signs, Inc.** Electrical Hazard Signs.

**A-6. Chicago Eye Shield Co.** Industrial Protective Equipment.

**A-7. Hillyard Chemical Co.** "Floor Treatment and Maintenance Job Specifications."

**A-8. Wheeler Protective Apparel, Inc.** Asbestos protection.

**A-9. Surety Rubber Co.** Coated Fabric Work Gloves.

**A-10. Industrial Products Co.** Ladder Shoes.

**A-11. F. J. Littell Machine Co.** Protecting the Punch Press Operator.

**A-12. Pioneer Rubber Co.** Stanzoil Work Gloves.

**A-13. Acme Protection Equipment Co.** Full Vision Gas Masks.

**A-14. Dockson Corp.** Safety Equipment Catalog.

**A-15. Standard Signs, Inc.** "Safety Signs for All Purposes."

**A-16. F. J. Stahmer Shoe Co.** Wooden Sole Safety Shoes.

**A-17. The Master Builders Co.** Sparkproof, Non-slip, Dustless Floors.

**A-18. Bausch & Lomb Optical Co.** Industrial Eye Wear.

Byron-Jackson Factory, Los Angeles, Calif. Archt.—Ellis Wing Taylor, Los Angeles. Contr.—C. L. Peck, Los Angeles.

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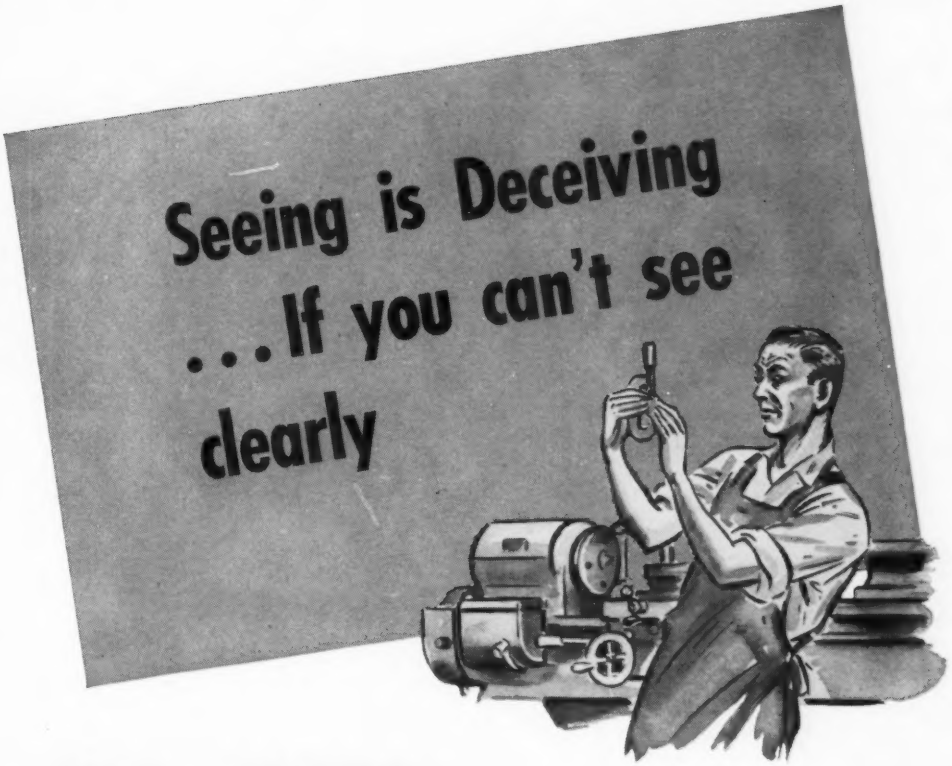


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